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SIMPSON STRONG-TIE COMPANY INC.

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

SIMPSON STRONG-TIE COMPANY INC.,

Plaintiff,

v.

OZ-POST INTERNATIONAL, LLC dba Ozco Building Products,

Defendant.

AND RELATED COUNTERCLAIMS

Case No. 3:18-cv-01188 WHO

DECLARATION OF KAJSA M. MINOR IN SUPPORT OF PLAINTIFF'S MOTION FOR PARTIAL SUMMARY JUDGMENT

Date: October 23, 2019
Time: 2:00 p.m.
Courtroom: 2, 17th Floor
Judge: Hon. William H. Orrick

Complaint filed: February 23, 2018
Trial by Jury: March 2, 2020

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I, KAJSA M. MINOR, declare as follows:

1. I am a partner in the law firm Shartsis Friese LLP, counsel for Plaintiff Simpson Strong-Tie Company Inc. ("Simpson") in the above-captioned action. I have personal knowledge of the facts stated herein, except as to matters stated on the basis of information and belief, and I believe such matters to be true. If called as a witness, I would testify as to the matters stated herein.

2. I submit this Declaration in support of Plaintiff's Motion for Partial Summary Judgment (the "Motion").

3. A true and correct copy of United States Patent No. 9,957,998 ("the '998 Patent") is attached hereto as **Exhibit A**.

4. A true and correct copy of United States Patent No. D798,701 ("the '701 Patent") is attached hereto as **Exhibit B**.

5. A true and correct copy of excerpts from the deposition of Oz-Post International, LLC's ("Ozco") expert Paul Hatch, taken on August 15, 2019 is attached hereto as **Exhibit C**.

6. On April 23, 2019, I received an email from Paul Storm, counsel for Ozco. In his email to me, Mr. Storm stated that, "[b]ased on [the Court's claim] construction, OZCO does not intend to assert the doctrine of equivalents because there is literal infringement." Consistent with Mr. Storm's email, Ozco has neither amended its infringement contentions to assert the doctrine of equivalents nor otherwise asserted that doctrine.

7. A true and correct copy of Ozco's expert report of Paul Hatch, titled "Expert Report of Paul Hatch Regarding Infringement of U.S. Patents D798,701 and 9,957,998" ("Hatch Infringement Report"), dated June 19, 2019, is attached hereto as **Exhibit D**.

8. A true and correct copy of excerpts from the deposition of Thom Murphy, a Simpson employee, taken on April 30, 2019 is attached hereto as **Exhibit E**.

9. A true and correct copy of excerpts from the deposition of Sokho Yim, a Simpson employee, taken on February 27, 2019 is attached hereto as **Exhibit F**.

10. A true and correct copy of Ozco's Second Amended Asserted Claims and Infringement Contentions, dated January 15, 2019, is attached hereto as **Exhibit G**.

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11. A true and correct copy of United States Patent No. D733,546 ("the '546 Patent") is attached hereto as **Exhibit H**.

12. A true and correct copy of United States Patent No. 10,253,801 ("the '801 Patent") is attached hereto as **Exhibit I**.

13. A true and correct copy of Simpson's expert report of John D. Pratt, Ph.D, titled "Rebuttal Report Of John. D. Pratt Concerning Noninfringement Of US D798,701 and US 9,957,998 Patents" ("Pratt Non-Infringement Report"), dated July 17, 2019, is attached hereto as **Exhibit J**. Portions of the report that were marked as "Highly Confidential - Prosecution Bar" pursuant to the Protective Order have been redacted.

14. A true and correct copy of excerpts from the deposition of Chris Paterson, a Simpson employee, taken on March 8, 2019 is attached hereto as **Exhibit K**.

15. A true and correct copy of excerpts from the deposition of Bob Bouchet, a Simpson employee, taken on January 23, 2019 is attached hereto as **Exhibit L.**

16. A true and correct copy of advertisements created by Ozco, copies of which were also attached to Simpson's Second Amended Complaint (ECF No. 52) is attached hereto as **Exhibit M**.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and of my personal knowledge. Executed this 3rd day of September, 2019 at San Francisco, California.

/s/ Kajsa M. Minor
KAJSA M. MINOR

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Exhibit A

US009957998B2

(12) **United States Patent**
Hill

(10) **Patent No.: US 9,957,998 B2**
(45) **Date of Patent: May 1, 2018**

(54) **MOUNTING HARDWARE**

(71) Applicant: **Oz-Post International, LLC**, Richardson, TX (US)

(72) Inventor: **Ian A. Hill**, Plano, TX (US)

(73) Assignee: **Oz-Post International, LLC**, Richardson, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 78 days.

(21) Appl. No.: **15/338,104**

(22) Filed: **Oct. 28, 2016**

(65) **Prior Publication Data**

US 2017/0045077 A1 Feb. 16, 2017

Related U.S. Application Data

(60) Continuation of application No. 14/820,757, filed on Aug. 7, 2015, now Pat. No. 9,771,966, which is a division of application No. 13/918,227, filed on Jun. 14, 2013, now Pat. No. 9,133,874.

(60) Provisional application No. 61/660,419, filed on Jun. 15, 2012.

(51) **Int. Cl.**
F16B 37/14 (2006.01)
F16B 35/00 (2006.01)

(52) **U.S. Cl.**
CPC ***F16B 37/14*** (2013.01); ***F16B 35/00*** (2013.01)

(58) **Field of Classification Search**
CPC F16B 37/14
USPC 411/372.5, 372.6, 373, 374, 377, 396, 411/480; D8/397
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

153,500	A	7/1874	Seymour
D30,898	S	5/1899	Paine
1,086,737	A	2/1914	Taylor
1,162,467	A	11/1915	Fitz
1,401,684	A	12/1921	Flannery
1,506,005	A	8/1924	Kraft
1,994,978	A	3/1935	Brown
2,316,695	A	4/1943	Jaffa
3,042,068	A	7/1962	Smith
3,266,828	A	8/1966	Baier
3,269,228	A	8/1966	Mack
D233,138	S	10/1974	Vogel
4,092,896	A	6/1978	Puchy
4,134,438	A	1/1979	Frieberg et al.
4,207,938	A	6/1980	Mortus

(Continued)

FOREIGN PATENT DOCUMENTS

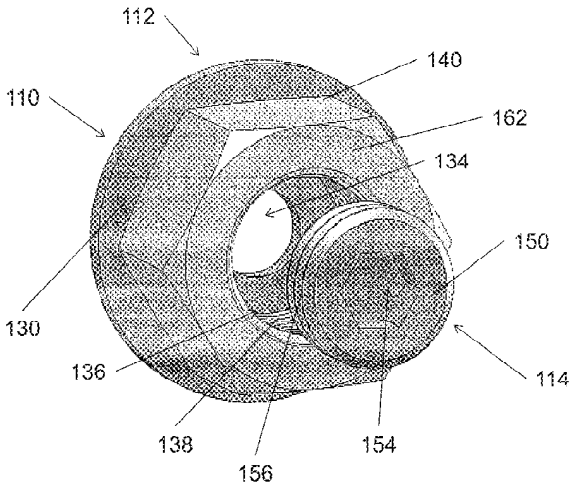
WO WO-9207198 A1 * 4/1992 ..... F16B 37/14

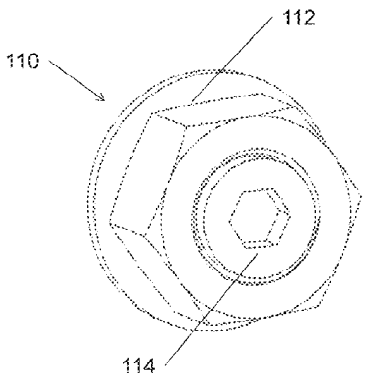
Primary Examiner — Flemming Saether
(74) *Attorney, Agent, or Firm* — Gardere Wynne Sewell LLP; Andre M. Szuwalski; John J. May

(57) **ABSTRACT**

A hardware apparatus includes a washer/nut member and a cap. The washer/nut member includes a plurality of outer surfaces disposed in a hexagonal shape, an inner cylindrical surface disposed radially internal to the plurality of outer surfaces, an intermediate cylindrical surface disposed radially between the plurality of outer surfaces and the inner cylindrical surface, and an annular surface disposed radially between the inner cylindrical surface and the intermediate cylindrical surface. The cap is disposed within the intermediate cylindrical surface, and the inner cylindrical surface is configured to contact a shaft portion of a bolt and the annular surface is configured to contact a head portion of the bolt.

8 Claims, 7 Drawing Sheets





(56) **References Cited**

U.S. PATENT DOCUMENTS

4,436,005	A		3/1984	Hanson
D276,879	S		12/1984	Bell
4,540,322	A	*	9/1985	Coffia F16B 41/005 411/338
4,631,887	A	*	12/1986	Francovitch E04D 5/143 24/459
4,632,616	A		12/1986	Sidoti
4,683,670	A		8/1987	Bates
4,822,223	A		4/1989	Williams
4,867,624	A	*	9/1989	Walley F16B 31/021 411/3
D311,131	S		10/1990	Saito
5,175,665	A	*	12/1992	Pegg ..... B64D 45/02 244/1 A
5,651,651	A	*	7/1997	Spencer F16B 41/005 411/372.6
5,728,136	A		3/1998	Thal
5,927,921	A		7/1999	Hukari
D416,192	S		11/1999	Tu
6,053,683	A		4/2000	Cabiran
6,220,804	B1		4/2001	Pamer et al.
6,361,258	B1		3/2002	Heesch
6,387,129	B2		5/2002	Rieser et al.
D459,207	S		6/2002	Miyata
6,457,923	B1		10/2002	Grossman
6,478,518	B1		11/2002	Hwang
6,540,750	B2		4/2003	Burkhart
D512,886	S	*	12/2005	Christensen D8/14
D524,149	S		7/2006	Kim
D551,972	S		10/2007	Jacobs
7,384,225	B2		6/2008	Woolstencroft
D588,893	S		3/2009	Radich
D602,349	S		10/2009	Andersson
D609,999	S		2/2010	Andersson
7,658,580	B1		2/2010	Conway et al.
D613,594	S		4/2010	Huang
D613,595	S		4/2010	Huang
D614,247	S		4/2010	Clausen
7,981,143	B2		7/2011	Doubler et al.
D646,153	S		10/2011	Andersson
D646,154	S		10/2011	Andersson
8,051,690	B2		11/2011	Camisasca
D679,988	S		4/2013	Yamazaki
D691,033	S		10/2013	Allman
D698,234	S		1/2014	Bauer
8,622,677	B2		1/2014	Wu et al.
D698,637	S		2/2014	Su
D706,126	S		6/2014	Orow
D713,243	S		9/2014	Hsu
D721,423	S		1/2015	Jacques et al.
D725,461	S		3/2015	Kopp
9,004,836	B2		4/2015	Wells et al.
9,377,047	B2		6/2016	Hill
D788,574	S		6/2017	Baiz et al.
2004/0170487	A1		9/2004	Thompson
2009/0108149	A1		4/2009	Goto
2016/0273573	A1		9/2016	Hill

* cited by examiner

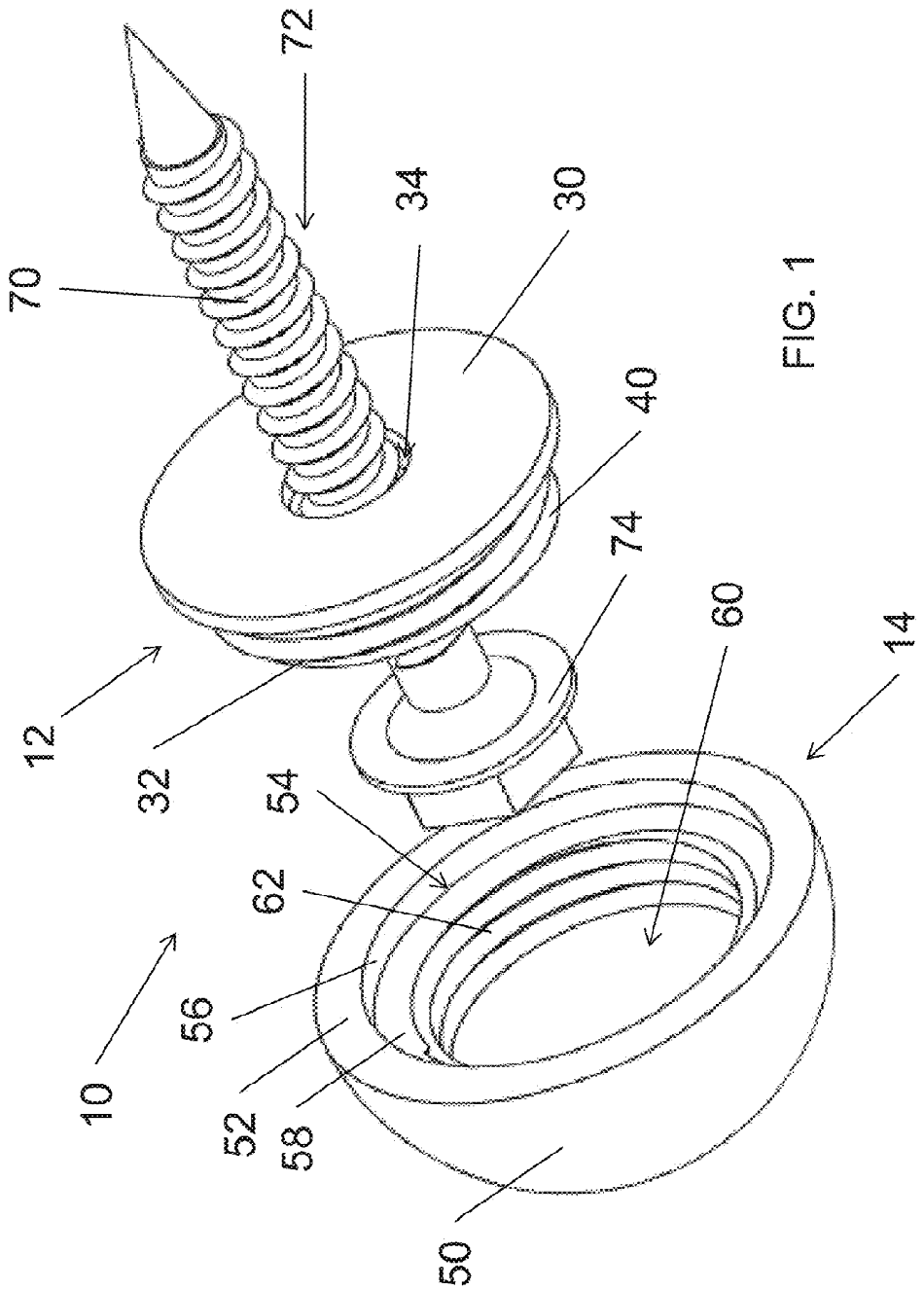


FIG. 1

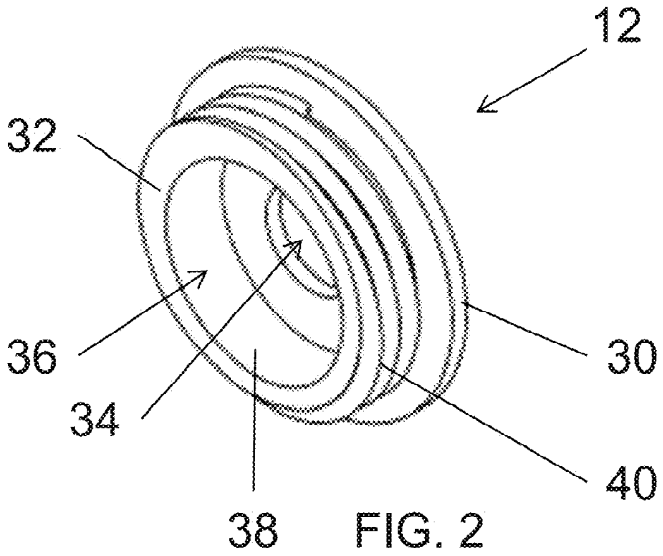


FIG. 2

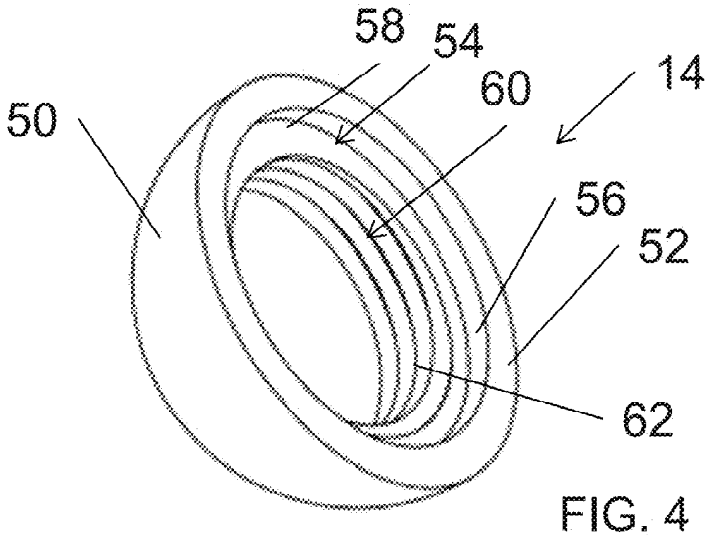


FIG. 4

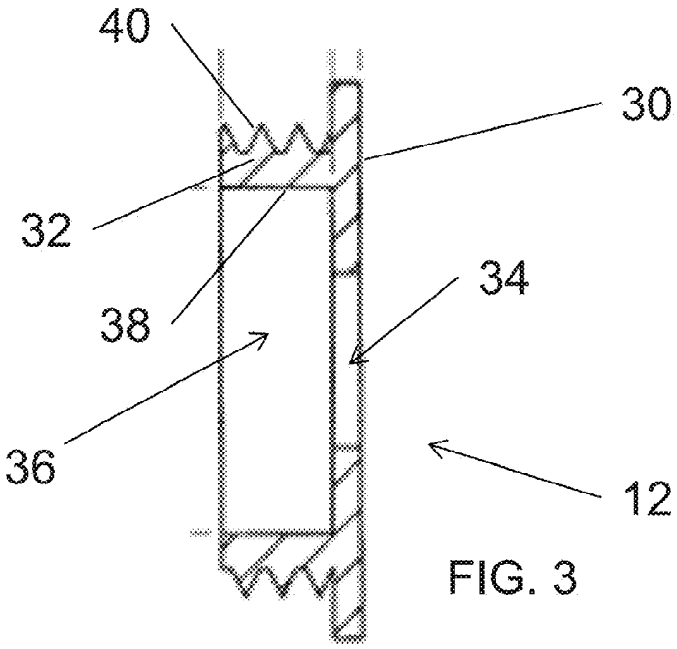


FIG. 3

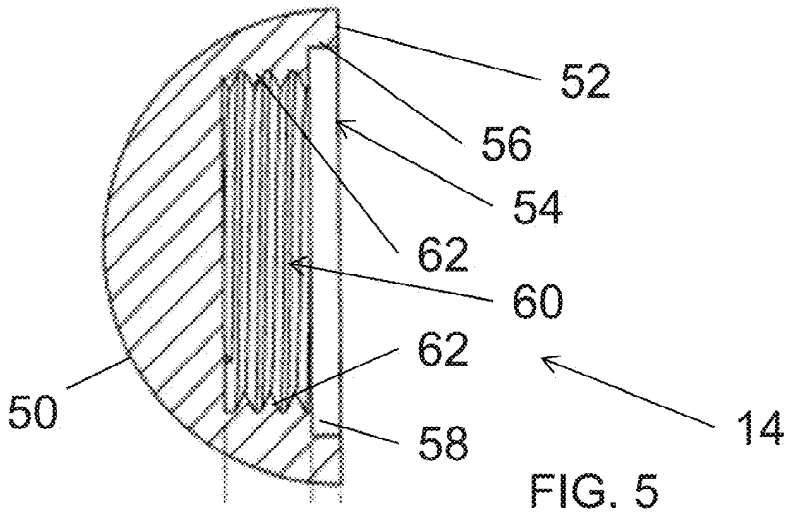


FIG. 5

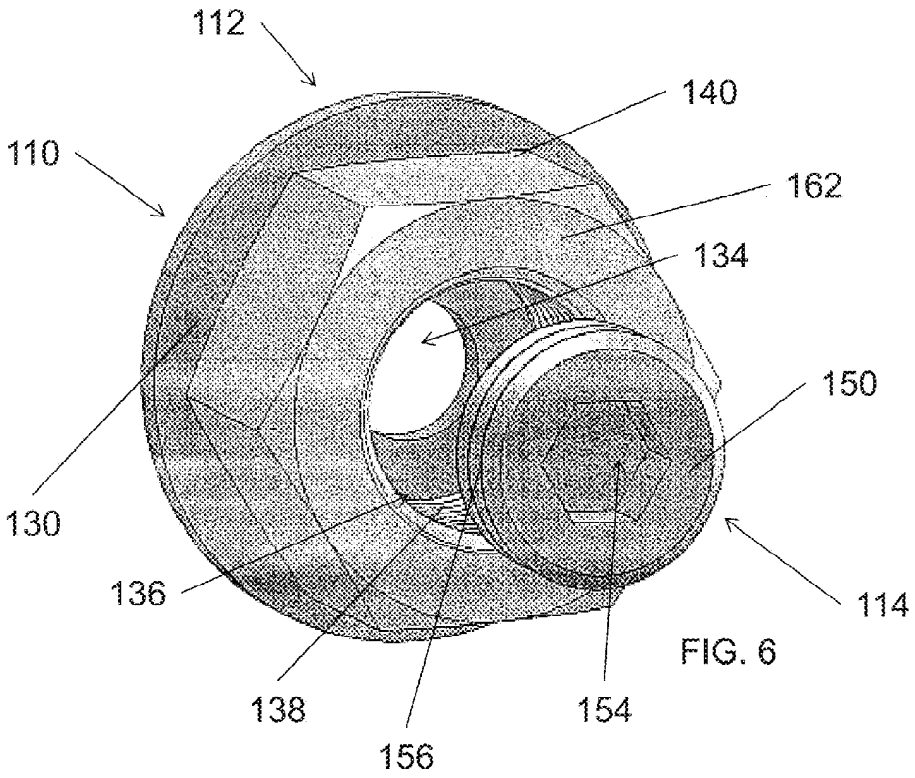


FIG. 6

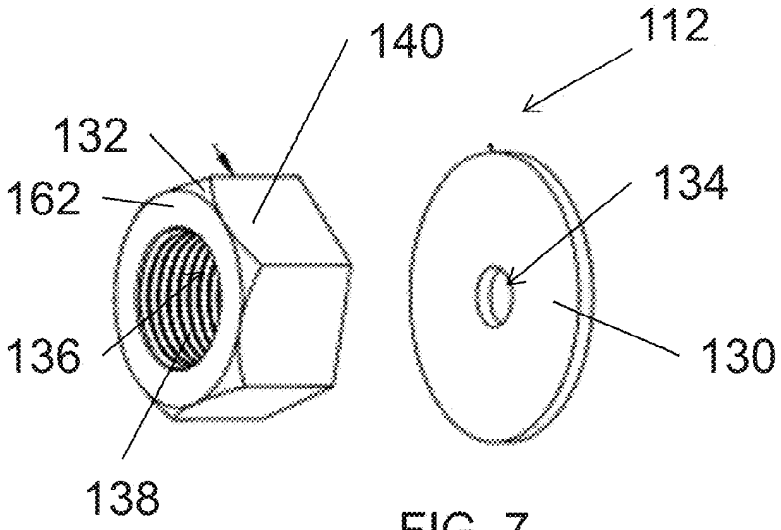


FIG. 7

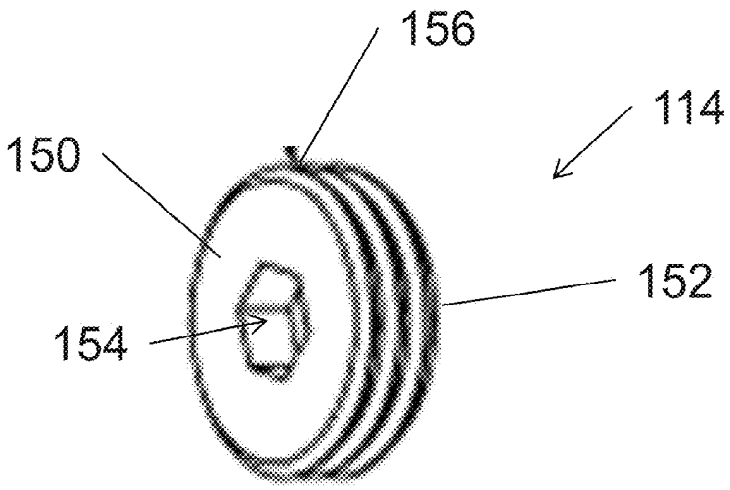


FIG. 9

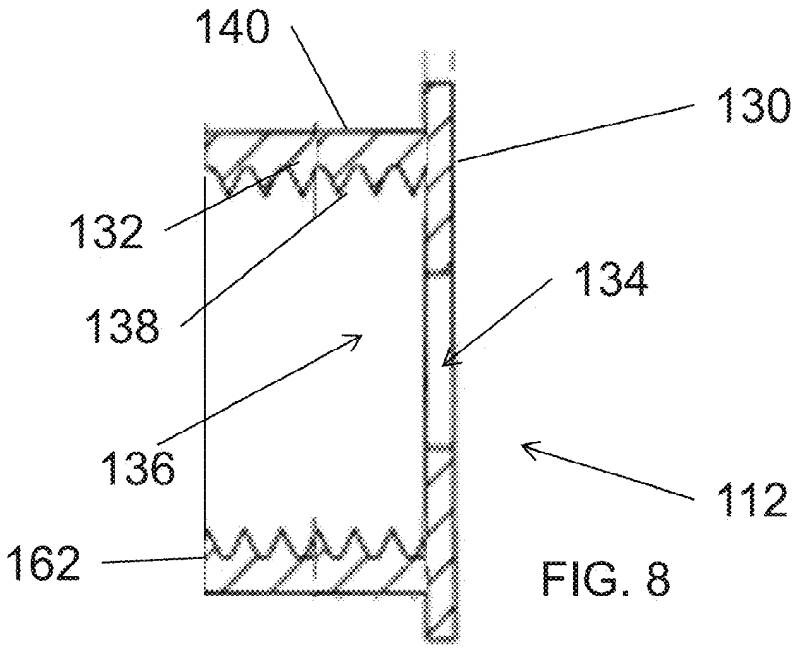


FIG. 8

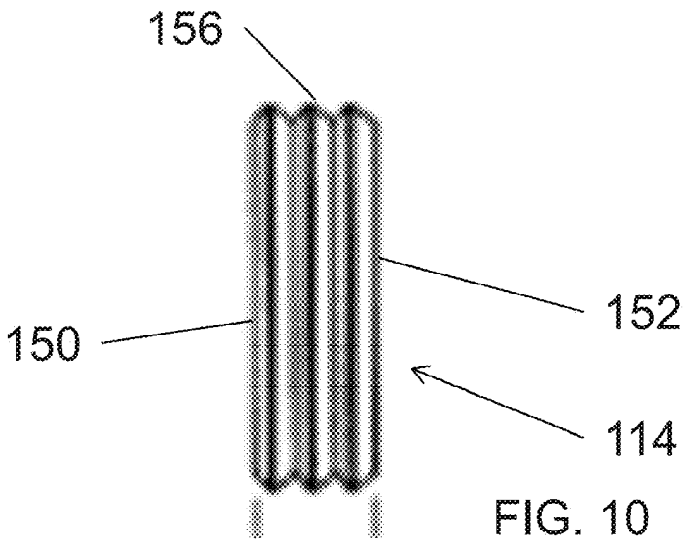


FIG. 10

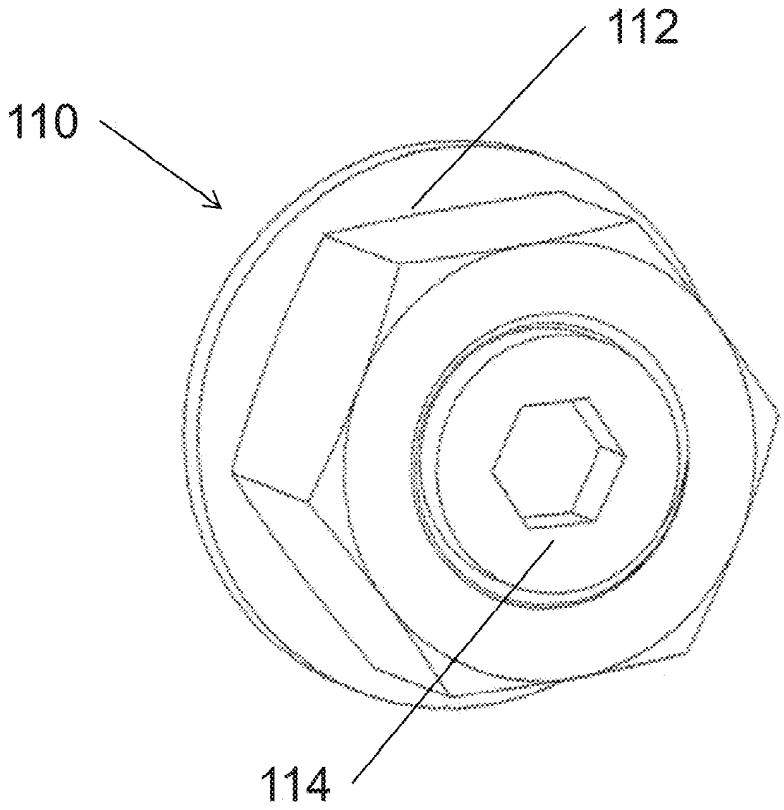


FIG. 11

MOUNTING HARDWARE

PRIORITY CLAIM

This application is a continuation application of U.S. application patent Ser. No. 14/820,757, filed Aug. 7, 2015, which is a divisional application of U.S. application patent Ser. No. 13/918,227 filed Jun. 14, 2013, now U.S. Pat. No. 9,133,874, which claims priority to U.S. Provisional Application for Patent No. 61/660,419 filed Jun. 15, 2012, each of which is incorporated herein by reference in their entireties.

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is related to U.S. patent application Ser. No. 15/168,649, entitled "Through Bolted Connection Hardware," filed on Jun. 22, 2016, which is a continuation of U.S. patent application Ser. No. 14/304,519, filed on Jun. 13, 2014, now U.S. Pat. No. 9,377,047, which claims priority to U.S. Provisional Patent Application No. 61/835,281, filed on Jun. 14, 2013, each of which is hereby incorporated by reference.

BACKGROUND OF THE INVENTION

Technical Field of the Invention

The present invention relates generally to mounting hardware and in particular to mounting hardware which imitates architectural hardware.

Description of Related Art

Many construction projects have aesthetic designs which require the use of architectural hardware. The term "architectural hardware" refers to hardware having antique designs. If the project budget permits, actual antique hardware components can be used, or alternatively the antique hardware components can be recreated or reproduced from same materials with the same design as the antique original. These options can be quite expensive, and thus are beyond the reach of most projects. Additionally, working with such connectors can require special skills and equipment, thus placing use and installation of architectural hardware components beyond the reach of the conventional consumer (such as a home owner).

One example of a desired architectural hardware component is the rivet, nail or pin connector. Another example of a desired architectural hardware component is a nut/bolt/washer connector. These components are typically made of iron or steel and used in a number of connection applications. Consumers desiring an aesthetic design matching old world craftsmanship would like to have access to rivet, nail, pin and/or nut/bolt/washer connector hardware that looks historically accurate but is made for easy installation at a low cost.

There would accordingly be an advantage if connectors having an architectural hardware aesthetic could be provided in a form which would permit installation using tools and skills possessed by most homeowners. In this way, the homeowner could match old world designs without the expense of finding actual antique parts, or paying for antique restorations or reproductions.

It is further known in the art to provide an antique-looking hardware component in the form of an appropriately configured head portion, such as domed cap to simulate a rivet or pin head, with a mounting device fixedly attached to the head portion. For example, a threaded connector or screw, or a nail, may be welded to a bottom or inside surface of the head portion. These hardware components can be installed as accent pieces, but do not provide for a structural configuration and support.

What is needed is a rivet, nail, pin and/or nut/bolt/washer connector sized and shaped to match antique connector designs but produced at a low per connector cost and constructed to permit easy installation. It would further be advantageous if the connector could also support use as a structural attachment.

SUMMARY

In accordance with an embodiment, apparatus comprises: a base portion including a disc-shaped base plate and a cylindrical member with a first threaded surface; wherein the disc-shaped base plate includes a first opening and the cylindrical member includes a second opening, said first and second openings being concentric; and a cap portion including a second threaded surface; wherein said cap portion is attachable to said base portion through engagement of the first and second threaded surfaces.

In an embodiment, a hardware component imitating a rivet, nail or pin connector comprises: a cap portion including a domed outer surface and a base surface, said base surface including a first cylindrical aperture and a second cylindrical aperture concentric with the first cylindrical aperture; wherein the second cylindrical aperture has an inner threaded surface; a base portion including a disc-shaped base plate and a cylindrical member having an outer threaded surface; wherein the inner threaded surface is configured to mate with the outer threaded surface; wherein the first cylindrical aperture is sized and shaped to receive the disc-shaped base plate.

In an embodiment, a hardware component imitating a nut/bolt/washer connector comprises: a base portion including a disc-shaped base plate and a cylindrical member having a first end mounted to the base plate, a second end opposite the first end and an outer surface with a hex configuration, said cylindrical member further including an aperture formed in the second end having an inner threaded surface; a cap portion including a flat outer surface, a flat base surface and an outer threaded surface extending between the flat outer surface and flat base surface; wherein the inner threaded surface is configured to mate with the outer threaded surface.

BRIEF DESCRIPTION OF THE DRAWINGS

A more complete understanding of the method and apparatus of the present invention may be acquired by reference to the following Detailed Description when taken in conjunction with the accompanying Drawings wherein:

FIG. **1** is an exploded perspective view of a rivet, nail, pin connector;

FIG. **2** is a perspective view of a base portion of the connector of FIG. **1**;

FIG. **3** is a cross-sectional view of the base portion of the connector of FIG. **1**;

FIG. **4** is a perspective view of a cap portion of the connector of FIG. **1**;

FIG. **5** is a cross-sectional view of the cap portion of the connector of FIG. **1**;

FIG. **6** is an exploded perspective view of a nut/bolt/washer connector;

FIG. **7** is an exploded perspective view of a base portion of the connector of FIG. **6**;

FIG. **8** is a cross-sectional view of the base portion of the connector of FIG. **6**;

FIG. **9** is a perspective view of a cap portion of the connector of FIG. **6**;

FIG. **10** is a side view of the cap portion of the connector of FIG. **6** and

FIG. **11** is an assembled perspective view of the connector of FIG. **6**.

DETAILED DESCRIPTION OF THE DRAWINGS

Reference is now made to FIG. **1** which illustrates an exploded perspective view of a rivet, nail or pin connector **10**. The connector **10** comprises a base portion **12** and a cap portion **14**. An outer surface of the base portion **12** is threaded. An inner surface of the cap portion **14** is correspondingly threaded. Thus, the cap portion **14** may be attached to the base portion **12** through the threaded interconnection. In this configuration, the base portion **12** comprises a male body member of the assembly and the cap portion **14** comprises a female body member.

Reference is now additionally made to FIG. **2** which illustrates a perspective view of the base portion **12** and FIG. **3** which illustrates a cross-sectional view of the base portion **12**. The base portion **12** comprises a disc-shaped base plate **30**. A cylindrical member **32** is mounted to the base plate **30**. The cylindrical member **32** is preferably centered on the base plate **30**. The base plate **30** includes an opening **34** extending there through. The cylindrical member **32** includes an opening **36** coaxially aligned with the opening **34**. The cylindrical member **32** accordingly has an inner sidewall **38** and an outer sidewall **40**. The outer sidewall **40** is threaded. The inner sidewall **38** is smooth.

Reference is now additionally made to FIG. **4** which illustrates a perspective view of the cap portion **14** and FIG. **5** which illustrates a cross-sectional view of the cap portion **14**. The cap portion **14** has a domed outer surface **50** and a flat base surface **52**. The domed outer surface **50** is sized and shaped to imitate the head of a rivet, nail or pin. The domed outer surface **50** may have a smooth finish. Alternatively, and perhaps preferably, the domed outer surface **50** may have a textured surface, for example with a texture that is dimpled to provide the look of a hammered or distressed surface. A first aperture **54** is formed in the base surface **52**. The first aperture **54** is cylindrical and has a side wall **56**. The aperture **54** is sized and shaped to receive the base plate **30** of the base portion **12** (i.e., its diameter is slightly larger than the diameter of the base plate **30** and its depth is about equal to a thickness of the base plate **30**). A bottom of the first aperture **54** is defined by a ledge **58**. A second aperture **60** is also formed, this time in the ledge **58**, wherein the second aperture **60** is coaxial with the first aperture **54**. The second aperture **60** is cylindrical and has a side wall **62**. The sidewall **62** is threaded to matingly correspond with the threaded outer sidewall **40** of the base portion **12**. The second aperture **60** has a depth equal to or, or more preferably exceeding a height of the cylindrical member **32**.

Reference is once again made to FIG. **1**. The opening **34** in the base plate **30** of the base portion **12** is sized to permit passage there through of a shaft **70** of a mounting device **72** (such as a screw or bolt). The opening **36** (FIGS. **2** and **3**) in the cylindrical member **32** of the base portion **12** is sized to permit reception of a head portion **74** of the mounting device **72**. Advantageously, the user is not limited in selection of the mounting device **72**. No limit on mounting hardware length, size or grade exists. So, if used in an ornamental manner, the user may choose a lower length, size or grade mounting device **72**. However, if used in a structural manner the user may instead select a higher length, size or grade mounting device **72**. The connector **10** is accordingly useful over a wide range of uses from purely ornamental to fully structural (where such structural use is augmented by the ornamental features of the cap portion).

To install the connector **10**, the base portion **12** is positioned on a mounting member at a desired mounting location. The mounting device **72** is driven into the mounting member through the opening **34** in the base plate **30** until the head portion **74** rests against the base plate **30**. The cap portion **14** is then attached to the base portion **12** by engaging the threaded sidewall **62** of the cap portion **14** to threaded outer sidewall **40** of the base portion **12**. The cap portion **14** is rotated to tighten the cap portion **14** into a secured position on the base portion **12** which hides the base plate **30** within the first aperture **54**, leaving the cap portion **14** with its domed outer surface **50** exposed. The resulting assembly thus imitates an architectural hardware component of the rivet, nail or pin connector type. Advantageously, the installation solely requires the use of a conventional mounting device **72** (for example, screw or bolt) and thus does not require specific installation expertise or tools. The connector **10** may solely provide a decorative feature as installed. Alternatively, through proper selection of the mounting device **72**, the connector **10** may additionally serve as a structural component.

Reference is now made to FIG. **6** which illustrates an exploded perspective view of a nut/bolt/washer connector **110**. The connector **110** comprises a base portion **112** and a cap portion **114**. An inner surface of the base portion **112** is threaded. An outer surface of the cap portion **114** is correspondingly threaded. Thus, the cap portion **114** may be attached to the base portion **112** through the threaded interconnection. In this configuration, the base portion **112** comprises a female body member of the assembly and the cap portion **114** comprises a male body member.

Reference is now additionally made to FIG. **7** which illustrates an exploded perspective view of the base portion **112** and FIG. **8** which illustrates a cross-sectional view of the (assembled) base portion **112**. The base portion **112** comprises a disc-shaped base plate **130**. A cylindrical member **132** is mounted to the base plate **130** (this is not shown in the exploded view of FIG. **7**, see FIG. **8**). The cylindrical member **132** is preferably centered on the base plate **130**. The base plate **130** includes an opening **134** extending there through. The cylindrical member **132** includes opening **136** coaxially aligned with the opening **134**. The cylindrical member **132** accordingly has an inner sidewall **138** and an outer sidewall **140**. The inner sidewall **138** is threaded. The outer sidewall **140** is sized and shaped to imitate a hexagonal nut (or bolt head), with the disc-shaped base plate **130** sized and shaped relative thereto to imitate a washer.

Indeed, the base portion **112** can easily be fabricated from off-the-shelf components. The disc-shaped base plate **130** may be a standard steel hardware washer and the cylindrical member **132** may be a standard steel hex nut. The hex nut may be welded to the washer with a concentric configuration.

Reference is now additionally made to FIG. **9** which illustrates a perspective view of the cap portion **114** and FIG. **10** which illustrates a side view of the cap portion **114**. The cap portion **114** has a flat outer surface **150** and a flat base surface **152**. The flat outer surface **150** further includes an opening **154** having a hexagonal shape sized to mate with a

standard size Allen wrench or other tool. The opening **154** is optional. The cap portion **114** further includes a cylindrical outer surface **156** extending between the flat outer surface **150** and the flat base surface **152**. The cylindrical outer surface **156** is threaded to matingly correspond with the threaded inner sidewall **138** of the base portion **112**.

The cap portion **114** may comprise, for example, a steel set screw.

Reference is once again made to FIG. **6**. The opening **134** in the base plate **130** of the base portion **112** is sized to permit passage there through of a shaft of a mounting device (such as a screw or bolt) like that shown in FIG. **1**. The opening **136** (FIGS. **7** and **8**) in the cylindrical member **132** of the base portion **112** is sized to permit reception of a head portion of the mounting device as well as receive the cap portion **114**. Advantageously, the user is not limited in selection of the mounting device. No limit on mounting hardware length, size or grade exists. So, if used in an ornamental manner, the user may choose a lower length, size or grade mounting device. However, if used in a structural manner the user may instead select a higher length, size or grade mounting device. The connector **110** is accordingly useful over a wide range of uses from purely ornamental to fully structural (where such structural use is augmented by the ornamental features of the base portion and cap portion).

To install the connector **110**, the base portion **112** is positioned on a mounting member at a desired mounting location. The mounting device (reference **72** of FIG. **1**) is driven into the mounting member through the opening **134** in the base plate **130** until the head portion **74** (see, FIG. **1**) rests against the base plate **130**. The cap portion **114** is then attached to the base portion **112** by engaging the threaded outer sidewall **156** of the cap portion **114** to threaded inner sidewall **138** of the base portion **112**. The cap portion **114** is rotated to tighten the cap portion **114** into a secured position on the base portion **112**. The opening **154** may be advantageously used during the tightening operation to receive an assembly tool such as an Allen wrench. Preferably, the cap portion **114** is tightened until the flat outer surface **150** substantially flush with a top surface **162** of the base portion **112** (see, FIG. **11**). The resulting assembly thus imitates an architectural hardware component of the nut/bolt/washer connector type. Advantageously, the installation solely requires the use of a conventional mounting device (for example, screw or bolt) and thus does not require specific installation expertise or tools. The connector **110** may solely provide a decorative feature as installed. Alternatively, through proper selection of the mounting device **72**, the connector **110** may additionally serve as a structural component.

Those skilled in the art recognize that with improvements in construction materials, many installations will no longer require beams or other support members. Nonetheless, the architectural design may require the presence of such beams or members even where they are not structurally required (for example, are not load bearing). It is common in such installations to install faux beams or members, for example, made or foam or other lightweight non-structurally graded materials that are aesthetically treated through painting and other techniques to look like a real beam or member. To complete the illusion that these faux beams or members are real, it is important that the proper supporting hardware be used (such as rivets, pins, nut/bolt/washers, etc.). The connectors **10** and **110** as discussed herein provide an effective means for adding supporting hardware connectors of a proper style and size. An advantage of the connectors **10** and **110** over prior art hardware is that the mounting device **72** is selectable at user option in accordance with the given application. Thus, the mounting device **72** may chosen for a tack application of the connector **10** or **110**, or alternatively chosen for a more structural application (such as for retaining the faux beam or member to a wall stud).

Although preferred embodiments of the method and apparatus of the present invention have been illustrated in the accompanying Drawings and described in the foregoing Detailed Description, it will be understood that the invention is not limited to the embodiments disclosed, but is capable of numerous rearrangements, modifications and substitutions without departing from the spirit of the invention as set forth and defined by the following claims.

What is claimed is:

1. An apparatus, comprising:

a washer/nut member comprising:

a plurality of outer surfaces disposed in a hexagonal shape;

an inner cylindrical surface disposed radially internal to the plurality of outer surfaces;

an intermediate cylindrical surface disposed radially between the plurality of outer surfaces and the inner cylindrical surface; and

an annular surface disposed radially between the inner cylindrical surface and the intermediate cylindrical surface; and

a cap disposed within the intermediate cylindrical surface;

wherein the inner cylindrical surface is configured to surround a shaft portion of a screw that contacts the annular surface; and wherein the washer/nut member further comprises an upper annular surface and a flat surface of the cap is substantially flush with the upper annular surface.

2. The apparatus of claim **1** wherein the washer/nut member further comprises a flange portion disposed radially external to the plurality of outer surfaces.

3. The apparatus of claim **1** further comprising the screw wherein the shaft portion of the screw is surrounded by the inner cylindrical surface and a head portion of the screw contacts the annular surface.

4. The apparatus of claim **1** wherein the cap includes a tool receiving feature.

5. The apparatus of claim **4** wherein the tool receiving feature is an opening.

6. The apparatus of claim **5** wherein the opening is hexagonally shaped.

7. The apparatus of claim **5** further comprising the screw received through the inner cylindrical surface and the intermediate cylindrical surface.

8. The apparatus of claim **1** wherein the cap includes an outer threaded surface in threaded engagement with the intermediate cylindrical surface.

* * * * *

Exhibit B

US00D798701S

(12) United States Design Patent

Hill

(10) Patent No.: US D798,701 S
(45) Date of Patent: ** Oct. 3, 2017

(54) **SIMULATED BOLTED HARDWARE**

(71) Applicant: **Oz-Post International, LLC**, Richardson, TX (US)

(72) Inventor: **Ian A. Hill**, Plano, TX (US)

(73) Assignee: **Oz-Post International, LLC**, Richardson, TX (US)

(**) Term: **15 Years**

(21) Appl. No.: **29/584,197**

(22) Filed: **Nov. 11, 2016**

Related U.S. Application Data

(60) Continuation of application No. 14/820,757, filed on Aug. 7, 2015, which is a division of application No. 13/918,227, filed on Jun. 14, 2013, now Pat. No. 9,133,874.

(51) **LOC (10) Cl.** **08-08**

(52) **U.S. Cl.**
USPC **D8/397**

(58) **Field of Classification Search**
USPC D8/397, 394, 382, 349; 411/427, 374
CPC A61B 17/0401; E04D 13/1476; E04G 25/065; F16B 41/002; F16B 23/0061; F16B 37/14; F16B 35/00
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

153,500	A		7/1874	Seymour	
D30,898	S	*	5/1899	Paine	411/427
1,086,737	A		2/1914	Taylor	
1,162,467	A		11/1915	Fitz	
1,401,684	A		12/1921	Flannery	
1,506,005	A		8/1924	Kraft	
1,994,978	A		3/1935	Brown	
2,316,695	A		4/1943	Jaffa	
3,042,068	A	*	7/1962	Smith	F16K 1/422 137/315.05
3,266,828	A		8/1966	Baier	
3,269,228	A	*	8/1966	Wilbur Mack	B25B 13/06 81/177.6
D233,138	S	*	10/1974	Vogel	215/200
4,092,896	A		6/1978	Puchy	
4,134,438	A	*	1/1979	Frieberg	F16B 39/24 411/163
4,207,938	A	*	6/1980	Mortus	F16B 39/284 411/281
4,436,005	A	*	3/1984	Hanson	B25B 13/481 81/177.75
D276,879	S	*	12/1984	Bell	D8/70
4,632,616	A		12/1986	Sidoti	

(Continued)

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(74) *Attorney, Agent, or Firm* — Gardere Wynne Sewell LLP; Andre M. Szuwalski; John Jacob May

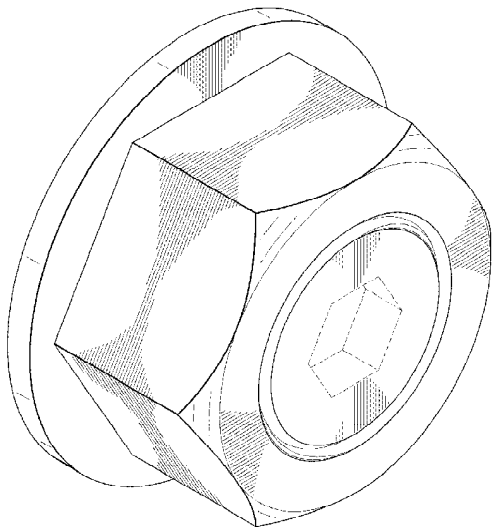
(57) **CLAIM**

The ornamental design for a simulated bolted hardware, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of a simulated bolted hardware;
FIG. **2** is a top plan view of the simulated bolted hardware;
FIG. **3** is a bottom plan view of the simulated bolted hardware;
FIG. **4** a front elevation view of the simulated bolted hardware, the rear elevation view is a mirror image thereof; and,
FIG. **5** is a right side elevation view of the simulated bolted hardware, the left side elevation view is a mirror image thereof.
The broken lines in FIGS. **1** and **2** form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

4,683,670	A		8/1987	Bates
4,822,223	A	*	4/1989	Williams F16B 37/122 403/268
D311,131	S	*	10/1990	Saito D8/397
5,728,136	A	*	3/1998	Thal A61B 17/0401 606/232
5,927,921	A	*	7/1999	Hukari F16B 31/06 411/186
D416,192	S	*	11/1999	Tu D8/397
6,053,683	A		4/2000	Cabiran
6,220,804	B1	*	4/2001	Pamer F16B 37/068 29/432.2
6,361,258	B1	*	3/2002	Heesch F16B 23/0084 411/178
6,387,129	B2	*	5/2002	Rieser A61B 17/8615 606/318
D459,207	S	*	6/2002	Miyata D8/397
6,457,923	B1	*	10/2002	Grossman A47C 17/1753 411/104
6,478,518	B1	*	11/2002	Hwang F16B 12/14 411/104
6,540,750	B2	*	4/2003	Burkhart A61B 17/0401 606/232
D512,886	S	*	12/2005	Christensen D8/14
D524,149	S	*	7/2006	Kim D8/397
D551,972	S	*	10/2007	Jacobs D9/445
7,384,225	B2		6/2008	Woolstencroft
D588,893	S	*	3/2009	Radich D8/70
D602,349	S	*	10/2009	Andersson D8/399
D609,999	S	*	2/2010	Andersson D8/399
7,658,580	B1		2/2010	Conway et al.
D613,594	S	*	4/2010	Huang D12/213
D613,595	S	*	4/2010	Huang D12/213
D614,247	S	*	4/2010	Clausen D21/488
7,981,143	B2	*	7/2011	Doubler F16B 37/0864 606/300
D646,153	S	*	10/2011	Andersson D8/397
D646,154	S	*	10/2011	Andersson D8/397
8,051,690	B2		11/2011	Camisasca
D679,988	S	*	4/2013	Yamazaki D8/397
D691,033	S	*	10/2013	Allman D8/397
D698,234	S	*	1/2014	Bauer D8/397
8,622,677	B2	*	1/2014	Wu B60S 9/08 411/427
D698,637	S	*	2/2014	Su D8/397
D706,126	S	*	6/2014	Orow D8/397
D713,243	S	*	9/2014	Hsu D8/397
D721,423	S	*	1/2015	Jacques D23/260
D725,461	S	*	3/2015	Kopp D8/397
9,004,836	B2	*	4/2015	Wells F16B 23/0007 411/402
9,377,047	B2		6/2016	Hill
D788,574	S	*	6/2017	Baiz D8/387
2004/0170487	A1		9/2004	Thompson
2009/0108149	A1		4/2009	Goto
2016/0273573	A1		9/2016	Hill

* cited by examiner

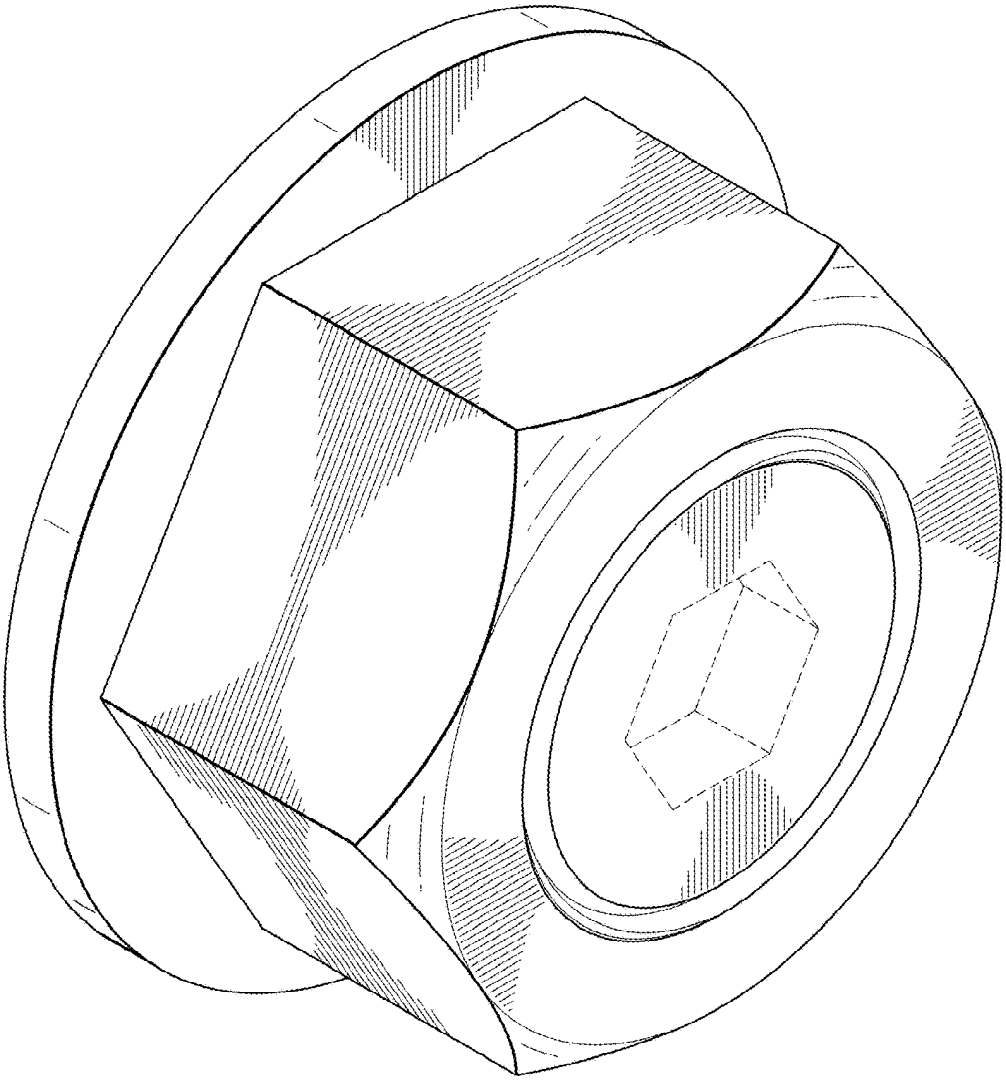


FIG. 1

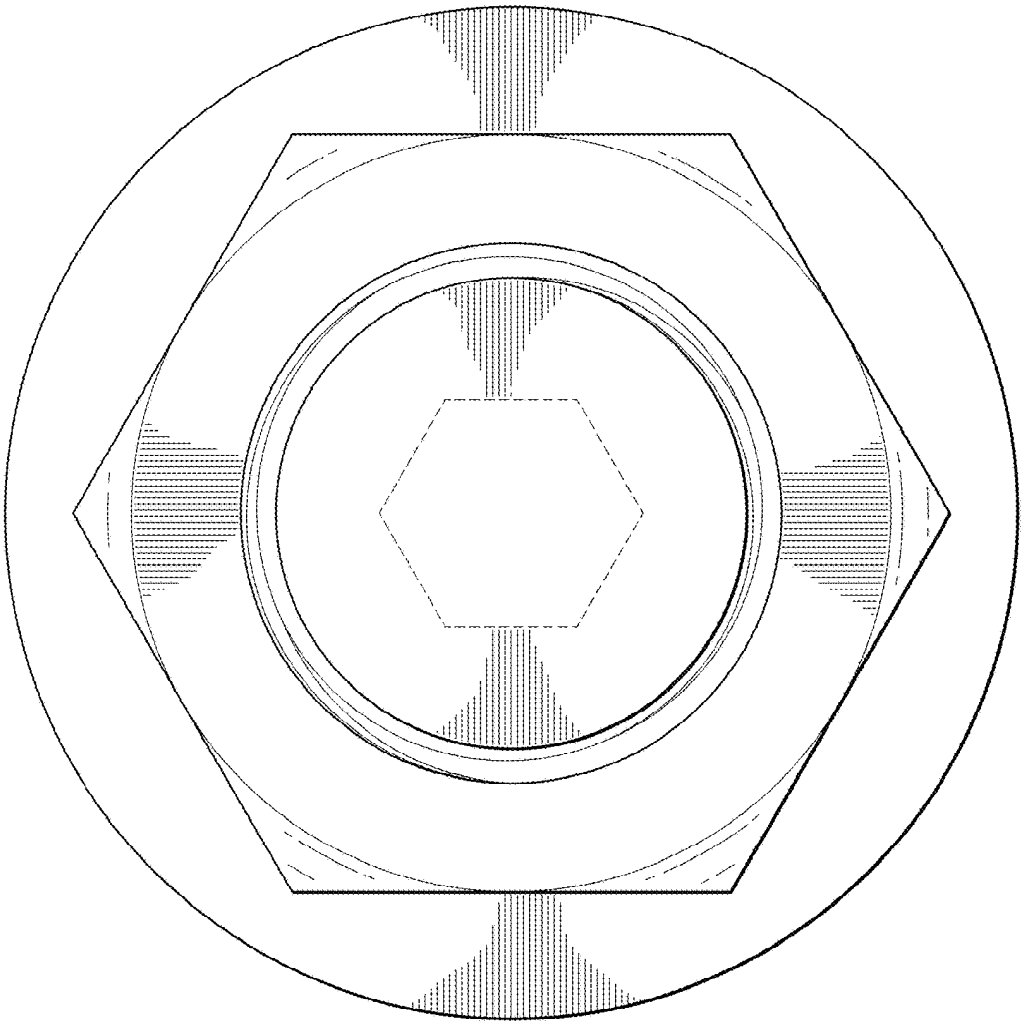


FIG. 2

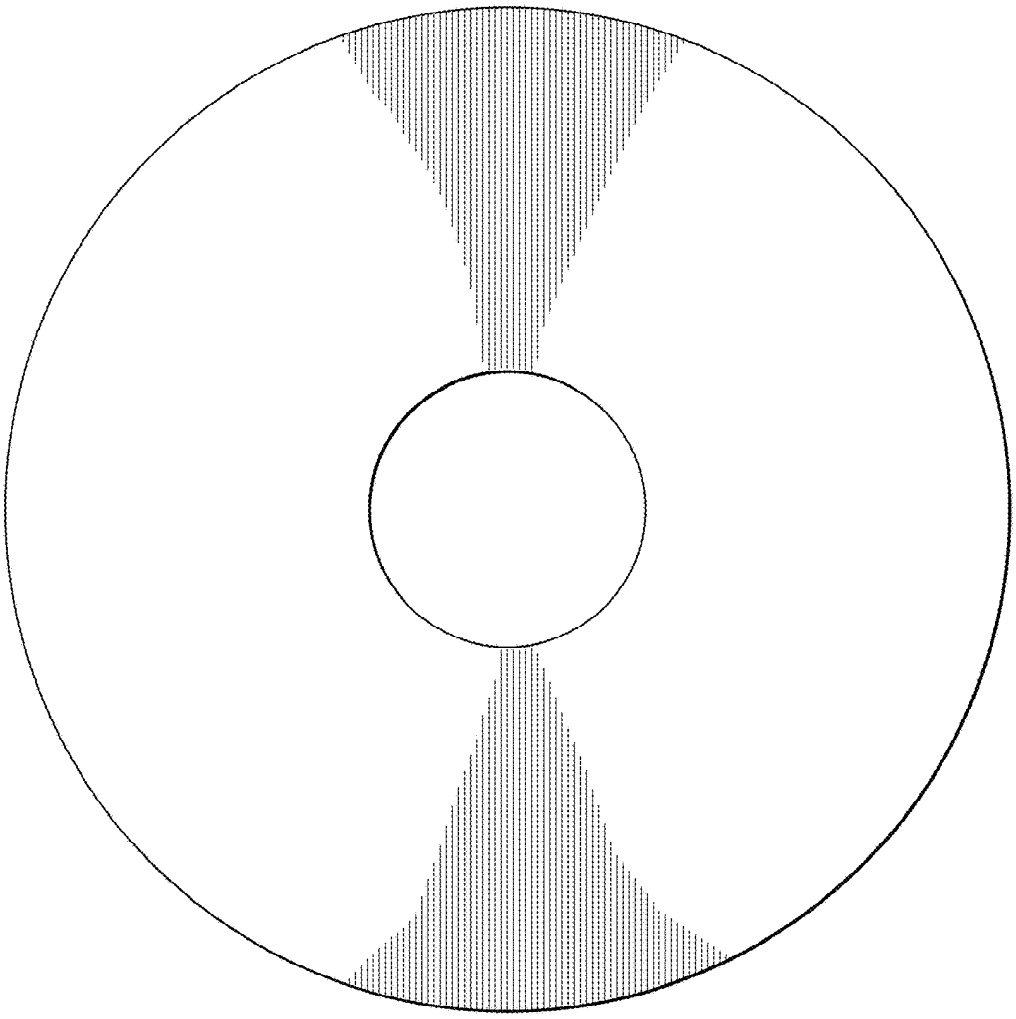


FIG. 3

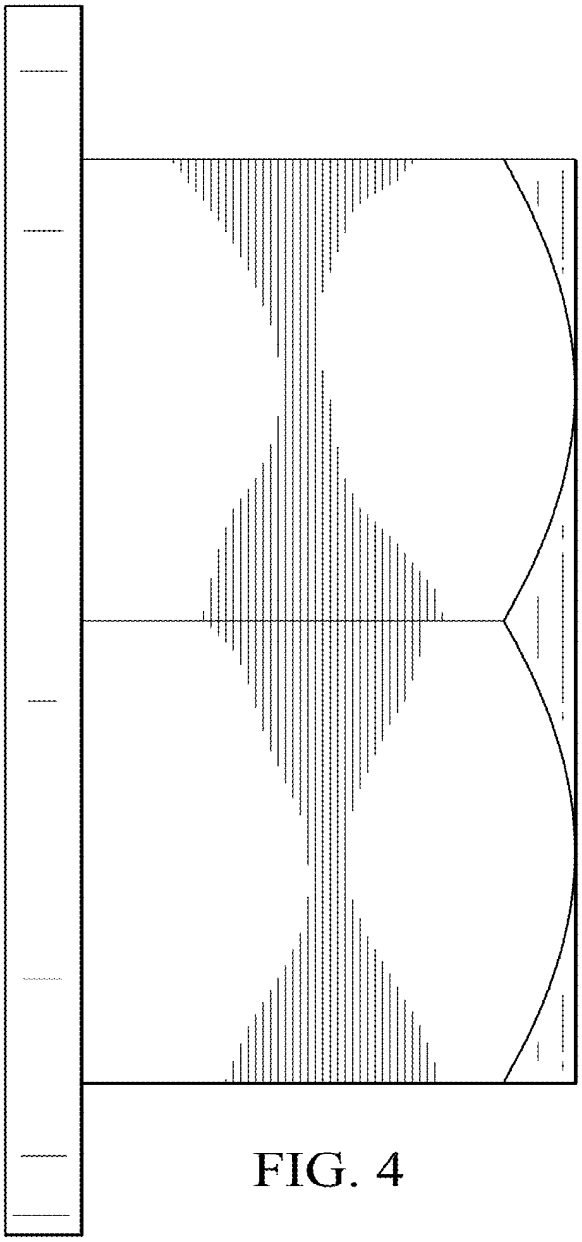


FIG. 4

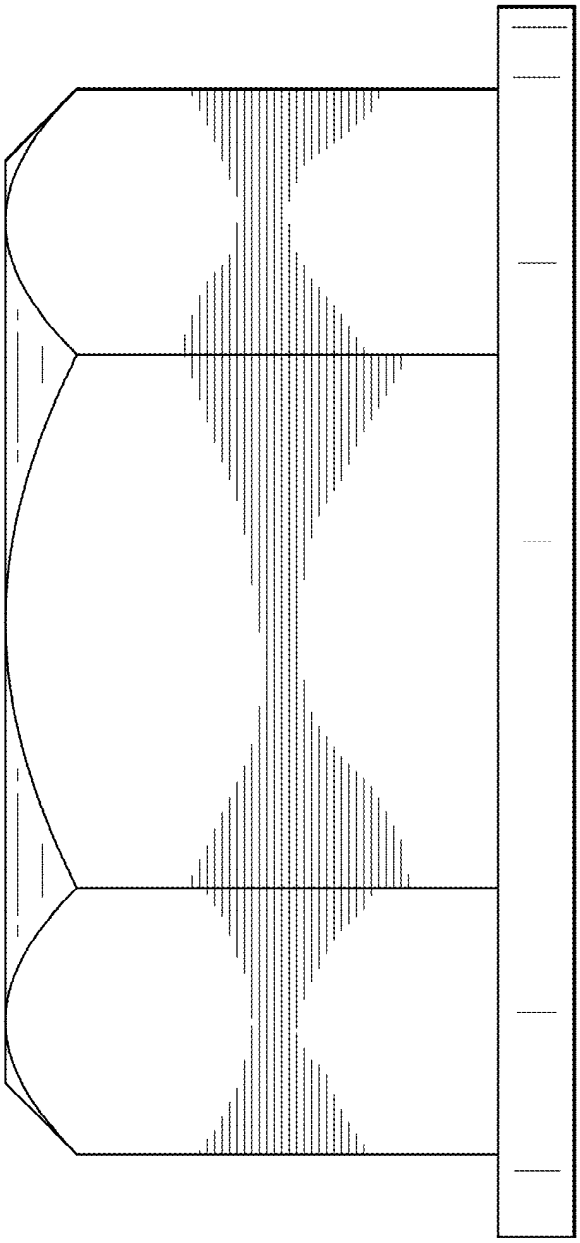


FIG. 5

Exhibit C

In The Matter Of:

Simpson Strong-Tie Company v
Oz-Post International, LLC dba Ozco Building Products

Paul Hatch
Vol. 1
August 15, 2019

Behmke Reporting and Video Services, Inc.
455 Market Street, Suite 970
San Francisco, California 94105
(415) 597-5600

Original File 35451Hatchv1 No Footers.txt
Min-U-Script® with Word Index

Page 21

A. Okay.
(Previously marked Exhibit 2, introduced by counsel.)
BY MS MINOR:
Q. So you have Exhibit 2 in front of you?
A. Yes.
Q. Can you just tell me generally your understanding of what the '701 patent claims?
A. The '701 patent is a design patent by the inventor, Ian Hill. It has five figures that illustrate the claims.
Q. So in your opinion, does the '701 patent claim the screw?
A. It does not. It does not include any language regarding a screw.
Q. Is there any screw reflected in any of the five figures?
A. The figures are labeled as simulated bolted hardware and there is no screw thread protruding that is depicted, but the labels do talk about simulated bolted hardware.
Q. Okay. And so let's break that down for me. Is it your opinion that the figures of the '701 patent claim a screw?
A. It does not depict a screw, per se, in

Page 22

the illustrations.
Q. Okay. So does the '701 patent claim an Ozco screw?
A. Can you clarify what you mean by an Ozco screw?
Q. Well, Ozco sells screws, right?
A. Yes.
Q. My question is: Any particular screw sold by Ozco claimed by the '701 patent?
A. Based on the illustration, there appears to be a screw or bolt, a head or at least the top of it, at the top. It wouldn't be clear whether that's an Ozco screw or not.
Q. Okay. We'll get to how that appears to be a head or a bolt. But you agree that there is no Ozco -- no particular Ozco screw that is covered by the '701 patent?
A. If this is representing a head, but it is not clear that it would be Ozco or a particular competitor, so it is not showing, in particular, that it's an Ozco screw.
Q. Okay. But it is your opinion that the '701 patent depicts the head of a screw?
A. It depicts an area with a circular groove around it that may represent the head of

Page 23

a screw.
Q. What's usually connected to the head of a screw? A shaft, right?
A. Which is not visible in the view.
Q. Well, it is not visible in the view, meaning it's not claimed by the '701 patent, right?
A. If there are details inside, yes, it has not been included in the illustrations, therefore, not claimed.
Q. You mentioned the title of the '701 patent or the claim language, the ornamental design for a simulated bolted hardware as shown and described.
Is it your opinion that this design patent only covers products in the field of simulated bolted hardware?
A. No, not necessarily. It is describing the reason the invention was put forward, but it -- it can, of course, relate to other visual -- visually fitting elements or physical products.
Q. Okay. So you'd agree with me that if I invented or put together an apparatus that looked exactly like this but it wasn't intended

Page 24

to simulate bolted hardware, perhaps it's --
A. An earring.
Q. Exactly. That it could still infringe the '701 design patent?
A. I believe so, if the visual traits were aligned, yes.
Q. Okay. Can you tell me generally your understanding of the law regarding infringement as to a design patent?
A. I can't tell you everything, but the -- the -- to test for infringement, we're judging whether it appears substantially the same as the infringing device.
Q. And what does substantially the same mean to you? How do you explain that?
A. The overall impression that the object gives to an ordinary observer and the ordinary observer in -- the hypothetical ordinary observer in this case has knowledge of the prior art, and so its context to prior art is an important part of the analysis.
Q. How do you gain an overall impression? I'm assuming to provide an opinion -- excuse me. This cold will never go away.
I'm assuming to do your work, you had

Page 25

to come up with the overall impression, you had to figure out what the overall impression of the accused product was to you?
A. The overall impression, as depicted by the figures and the combination of those figures, and to understand the object that is shown here.
Q. And do you also have to understand the overall impression of the accused product?
A. To compare against the accused product, yes.
Q. So when comparing an accused product's overall appearance, do you disregard any aspects of its appearance before comparing it to the claimed design?
A. There are certain aspects that are included in the analysis but have lesser weight, such as functional elements.
Q. So you don't disregard them, you just give them lesser weight, is that what you just said?
A. Depending on the context of functional items within -- within the object, yes.
Q. So is it your understanding that if a design patent, which we agree covers only

Page 26

ornamental aspects of a design, right?
A. It covers ornamental aspects.
Q. So if you have a design patent that is purely ornamental and you have an accused product that has ornamental features but also functional features, is it your understanding that you disregard the functional features of the accused product?
A. In an analysis, you don't disregard the functional features.
Q. Okay. And when gaining an overall impression of the accused product, you're not limited to just looking at what it looks like at the point of sale, right?
A. Are you referring to the accused product?
Q. Yes.
A. Yes. You're not limited to how it appears at point of sale.
Q. And you're not limited to what it looks like when it's installed in its final intended installation, right?
A. Again, a lot of the context is very important. The ordinary observer, understanding who the ordinary observer isn't how they -- how

Page 27

and where they view the product and how it is depicted. So if it's generally seen installed or if it is generally seen in other regards, then that's very important to take into consideration.
Q. Okay. So you -- does that mean that you give more weight to the visual impression of an accused product in its installed state if it's something that's intended to be, you know, installed for -- until it fails, do you give more weight to what it looks like installed than when it is not?
A. Not necessarily. It depends upon how the ordinary observer would generally view the item or how they would judge its being used.
Q. So what about with the accused product here, what uses of the product did you take into consideration?
A. As outlined in my report, very often, it is depicted at point of sale and including online, installed, and so considering its installed position, as well as how it is displayed within packaging was an important part of the analysis.
Q. Okay. So let's break that down.

Page 28

Starting with the point of sale, how did you familiarize yourself with what the accused product looks like at the point of sale?
A. I did go out to retail. I also went online to see the product, to see how it is depicted, and I also analyzed the packaging itself and unboxed the product from the packaging and even used the product.
Q. Did you watch anyone else use the product?
A. I have not seen and installed, actually installed it in real life.
Q. So do you think the existence of the shaft of the screw is apparent when consumers -- at the point of sale?
A. Can you clarify your question?
Q. Sure. So the accused product is the SWS wood screw, right?
A. That's part of the accused product, yes.
Q. Right. Sorry.
Includes the SWS wood screw, right, and the washer, the hexhead washer?
A. Yes.
Q. So at the point of sale, you understand

Page 37

showing you on Exhibit 282 which the total video is 47 seconds.
A. Uh-huh.
Q. And we are paused at 19 seconds. And do you see how the products are sitting upside down on the work site?
A. Yes. For the promo video, they're showing them assembled together, yes.
Q. They're showing them assembled together with the shaft of the screws sticking upward, correct?
A. In this particular still, yes.
Q. Yes.
And did you consider this use of the product in your infringement analysis?
A. What is it you're seeing in this use displaying for the video or?
Q. This use being -- well, first of all, you didn't watch the video, right, prior to today?
A. Not before today, correct.
Q. In rendering your opinion, you had not seen this video?
A. I had not seen this video before my report, yes.

Page 38

Q. When using the product, did you ever have the product sitting like this on a surface which is the head of the screw sitting flush with the table and the washer attached to it?
A. It is likely it may have been in this position, probably more likely I had it lying down so that it's less of a hazard.
Q. Okay. But so it is fair to say that you did not consider this use of the product since it's something that you wouldn't have done, this use of the product was not part of your consideration in rendering your opinion?
A. I would think it was considered as a use, but it was not highlighted as a unique feature.
Q. Okay. So my question is not whether it is a unique feature. My question is simply did you consider the product, the accused product in this format, in this use, in this position in forming your opinion?
A. Yes, because the object as a whole in all angles was considered which would include this.
Q. Okay.
A. Angle.

Page 39

Q. So you did sit it in this position?
A. I considered at least in regarding the infringement in my head. Whether I literally sat it in this position, I don't know.
Q. And when you look at this image, do you see a shaft of a screw sticking out of the washer?
A. It's visible, yes.
Q. And you don't need to use any other product with this, right, to install it? You're set with the washer and the screw as a user?
A. You still, as shown in the video, they're using tools to -- to assemble it.
Q. Right. A power drill. But as far as product, you don't need to add anything to the screw or the washer before installing it into the wood member?
A. Not necessarily, but you could.
Q. But you don't need to?
A. You don't need to add an additional nut, if that's what --
Q. Great.
A. -- you're inferring.
Q. Okay. And now we are paused at 21 of 47. Can you describe this image to me?

Page 40

A. In the image, the actor has a glove on, is holding the nut with his forefinger and thumb and has a driver which is attached to the head of the screw. The screw is going through the washer/nut element.
Q. And is the base of the washer flush with the wood member?
A. The base of the nut -- there is a gap between the work piece and the nut.
Q. And that gap is caused by the shear tube nut, the collar that sticks out at the bottom of the washer?
A. No, the gap is because the user is holding it away from the work piece. There is actually the screw tip that is contacting the work piece.
Q. So if I show you a little further on 21, still on 21, though, do you see that there is a gap between the wood member and the flat of the washer that is caused by the shear tube nut?
A. In the context of the video, obviously, the person is moving it towards the work piece. The previous still showed it further away and now it's closer to the work piece. You can't tell from this individual's still whether that

Page 41

element that you were pointing out is sitting in a hole or on the surface itself.
Q. Okay. When you use the product.
A. Uh-huh.
Q. Dan you tried to install it, was the base member flush with the wood member or was it raised a little by the shear tube nut that extends beyond the base of the member?
A. In the wood that I installed it, the element underneath did contact the wood first.
Q. Leaving a gap between the base member, base of the washer/nut member and the actual wood member, the gap between the distance, the thickness of the shear tube nut, the shear tube portion of the nut?
A. Yes, the distance wasn't equal to the -- to the size of the tube nut but there seemed to be a gap, yes.
Q. And did you consider that visual impression that is caused by holding the washer member in place, holding the screw with the power drill, the length, the shaft of the screw being a section between the head of the screw and the washer, did you consider that use of the product in your analysis?

Page 42

A. I considered, yes, the visual aspects of how it gets installed.
Q. And did you consider the shear tube portion causing the washer/nut member not to sit absolutely flush with the wood member in your analysis of the overall impression of the accused product?
A. In the utility or in the function side, it was considered, but it -- in using the product, it did occur to me that it created a gap, and in soft woods, that gap probably would occur.
Q. So not utility. We're not talking about utility. We're talking about the design patent, right? You understand that we're speaking about the overall visual impression that the accused product provided you.
A. Uh-huh.
Q. And I am trying to understand the various considerations that you had while using the product and viewing the product?
A. Yes.
Q. So my question wasn't about the utility of the shear tube. It is: Did you consider the extending shear tube causing the washer/nut member to not sit flush with a wood member when in use?
A. Yeah. You are describing a function there. It is hard not -- but maybe if you described the visual.
Q. I'm trying to. That's why I showed it to you. I think it is easier.
A. Okay. Okay.
Q. I'm asking the visual impression that it leaves. Did you consider the visual impression of the fact that the washer/nut member sits some distance away from the wood member when you're installing it?
A. I did notice that, that only hard wood, there is a gap would not exist when using soft wood or something like polystyrene for a forming. So there is a visible gap in some cases.
Q. Did you consider that when deriving your infringement opinion, the '701 design patent?
A. I did consider the fact that there may or may not be a gap there, yes.
Q. And that gap isn't present -- wouldn't be present with the design patent as depicted in the '701?

Page 43

Page 44

A. The design patent does not show a work piece or include how or if there would be a gap when installed to a work piece.
Q. Well, it is flat on the bottom, right?
A. It's flat on the bottom.
Q. So no matter what hardness of wood you're using, it is going to sit flush, right?
A. Depending on what you use to install it.
Q. What do you mean?
A. If you used a screw or put a washer, a small washer under it. If you used a shouldered bolt, there would be a gap to the work piece.
Q. So it depends on what you combine with the design in the '701 patent?
A. It would -- yes, it doesn't show the work piece so it doesn't tell you that there would or would not be a gap. It does not limit it to having a gap or not having a gap.
Q. Okay.
A. If I wanted a gap, I could create one.
Q. Depending on the mounting device that you use?
A. Yes. Or what I'm attaching to.

Page 45

Q. And with the accused product, you're stuck with that mounting device, right?
A. How do you mean stuck with the mounting device?
Q. Well, the accused product already includes your mounting device, the mounting device being the SWS screw, right?
A. It's -- the packaging does tell you to use that particular screw.
Q. So my question is whether there is a gap depends -- whether there is a gap when using the design of the design the '701 patent, it depends on the mounting member used because you can use various mounting members, right?
A. Yes, or the flatness of the work piece or any details on the work piece, other things could create a gap.
Q. Right. But that gap is present with the shear tube nut because with the shear tube nut, you are using the SWS every time, right?
A. The gap is not created by the SWS screw.
Q. No. It is created -- okay. Let's back up.
The accused product here is the SWS and

Page 46

the shear tube nut or hexhead washer unfortunately has many names?
A. Yes.
Q. But when I say those, you understand what I'm talking about, right?
A. Yes. And when to -- for clarification, when you talk about the shear tube, you're talking about the small cylinder on the underside of the washer nut.
Q. Yes. And so since the accused product is those two combined, that's what I'm talking about when I say, you know, you're stuck with the SWS, not because Simpson recommend it but that's the world we're in, it is the accused product.
So I'm saying when you use the accused product, which means you're using the shear tube nut and the SWS screw, you don't have a choice of a different mounting member to avoid a gap or not, there is always going to be the shear tube there causing that gap, right?
A. The shear tube sometimes causes a gap but not always.
Q. Depending on the wood?
A. Yes, depending on the work surface that

Page 47

you're using, yeah.
Q. And the screw shaft of the accused product is only not visible when the product is installed, right?
A. It's -- it's not visible when the -- it is not visible when it is installed. You could argue that at certain angles, it is not visible.
Q. But at the point of purchase, it is visible, right?
A. It is visible at point of purchase.
Q. When you take it out of the packaging, it is visible, right?
A. You -- yes, it is visible when you take it out of the packaging.
Q. When you have it in a pile on the job site or the project site, it is visible, right?
A. Yes, it is visible then.
Q. When you're holding it in your hand to install it, it is invisible, right? Sorry. It is visible, right?
MS. MINOR: It is only --
THE WITNESS: It's visible, yes, that component, that part of the accused product is visible in that situation.

Page 48

BY MS. MINOR:
Q. And when it's installed, it's not visible, no matter the wood member? I don't think you're installing it in a see-through beam, right?
A. It's -- right, assuming it is not a see-through beam or a beam that is shorter than the thread.
Q. Which would just be a terribly built pergola. But so if I am taking down my pergola and don't want it anymore and I'm -- I have to take it apart, that's when the screw shaft becomes visible again, right?
A. Not necessarily.
Q. Oh, when else does it become visible?
A. Would you disassemble it from the wood or would you just take down the pergola and throw away the materials?
Q. What if I'm moving and I really like my pergola? That was an expensive pergola. I'm taking it with me. The shaft becomes visible again then?
A. In this hypothetical, if you do remove the screws by using power tools to remove them, you would see them again, yes.

Page 49

Q. And you understand that for a design patent infringement, you're supposed to consider the lifetime of the product from the point of purchase through all its use up to destruction or loss, right?
A. Yes, but the -- yes, you do consider that, but it's not all of equal weighting.
Q. And what do you mean by that?
A. The overall impression given to the ordinary observer at point of purchase, for instance, would be highly important because that is part of the motivation as to whether the user chooses that item over another or distinguishes it.
Q. And what is the basis for your opinion that the point of purchase is more important than any other?
A. Essentially, for what I said, that it -- at that point, the motivation of the user to choose or to distinguish it is more -- is more relevant, whereas when it is sitting in a pergola or if I am -- you know, hypothetical argument, for example, if I'm disassembling a pergola, I am less observant of the item itself.
Q. So your understanding of the standard

Page 50

for finding infringement of design patent, the ordinary observer standard, is at the point of purchase is the most important consideration, the look at the point of purchase?
A. It is a very important point. But obviously, the full journey has to be regarded and understand that, the visual context.
Q. And when you're understanding the visual context, do you believe you're doing that from the point of a purchaser?
A. It's the ordinary observer is the -- who is somebody who purchases and uses the product.
Q. And so we talked about the shaft and when it is visible. The shear tube nut is also visible at the point of purchase, right? Sorry. The shear tube. The nut part just rolls off your tongue. The shear tube is only visible, as we said, that's the portion that extends beyond the base of the washer and the member.
A. Uh-huh.
Q. So the shear tube is visible at the point of purchase, right?
A. You are able to peer through the packaging and see it.

Page 51

Q. And it's visible and apparent when you take the product out of the packaging, right?
A. It's visible. It's not very apparent, but it's visible.
Q. What is the difference between visible and not very apparent to you?
A. It's not very apparent because it's not one of the features that are prominent in the overall build of the washer nut.
Q. Okay. Well, if you're holding it, you can feel it, right?
A. Maybe if you're touching that part.
Q. Well, if you're holding it in your hand?
A. Uh-huh. You won't necessarily feel that detail.
Q. Okay. So if it is sitting bottom side down in my hand, I don't feel it?
A. You would feel the washer around it primarily.
Q. Primarily. But I would feel the shear tube?
A. If you're analyzing it and you can touch it and sense it, but it wouldn't be the thing that you notice in your hand.

Page 52

Q. So what was your impression when you first held Simpson's shear tube nut?
A. I'm not sure what my first impression was.
Q. Well, did you notice the shear tube portion?
A. At some point I did notice it as I was analyzing the product.
Q. And did you wonder what it was for?
A. I did. As I was analyzing the product, I wondered what it was for.
Q. Because you didn't expect it to be there, right? I mean, you're -- I think most people are just used to a flat bottom of a washer, right?
A. Not necessarily, but there are plenty of items that have a similar detail. But in observing and looking at the details of the product itself, I did see it and I wonder its function.
Q. But for the purpose of the design patent analysis, did you consider the function of the accused product, what it is used for or just its looks?
A. It was all considered.

Page 53

Q. You did consider its function?
A. The function was important to consider.
Q. And why is that?
A. Because evaluating the ornamental features, it is important to know the function behind those.
Q. And why is it important to know the function?
A. Functional features have less weight in the overall impression when evaluating for in a case like this.
Q. Why is that?
A. Because the ornamental features are the elements that are claimed as part of the design patent.
Q. So -- and I thought we talked about this earlier, but I think we need to talk about it again.
So we agreed that the design patent does not show in any of the images the shaft of a screw extending from the bottom, right?
A. It does not show the -- a shaft extending from the bottom.
Q. And the accused product has a shaft extending from the bottom?

Page 54

A. The accused product has a shaft extending from the bottom.
Q. And is it your opinion that you give less weight to the shaft of the screw because it has a function?
A. The ordinary observer, when seeing the screw thread, would -- it would have less weight in the overall impression of the object because the distinct features of the object are elsewhere, not on the thread.
Q. So is it your position, your understanding that for design patent infringement, when considering the accused product, you only look at the distinct features of the accused product that are not functional?
A. No, that's not --
Q. Okay. Please explain to me how -- your position regarding the shaft of the screw of the accused product. I understand that you said that you don't disregard it, but you give it less weight?
A. Yes.
Q. And what does that mean?
A. In this particular case, the ordinary observer, when looking at the assembled product

Page 55

when it's -- when it is not assembled into a pergola or material would visibly see the screw thread, but the screw thread is extremely commonplace with attachment mechanisms, devices like this, and so the distinct features are the things that would draw their eye which is to do with the rest of the body, the assembly itself.
Q. Okay. And is there -- what do you base everything you just said on, that the ordinary observer would recognize that the shaft is just an ordinary and commonplace feature, but the distinctiveness of the head is what matters. What is the basis for your opinion that that is what an ordinary observer can consider?
A. Based upon my -- my experience with hardware and designing for and understanding how users see products.
Q. Okay. So it is not based on any legal standard anywhere that you're aware of?
A. It's -- the method is based upon the legal standard for analysis.
Q. But you're not aware of any legal standard that says that an ordinary observer does not consider functional aspects of an accused product or provides those less weight in

Page 56

the analysis?
A. Which one are you asking, just for clarification?
Q. Let's go with you're not aware of any legal standard that says that an ordinary observer provides -- gives less weight to functional aspects of an accused product in its infringement analysis?
A. My understanding is that more weight should be applied towards the ornamental features more so than the functional features.
Q. Of an accused product?
A. Of an accused product in this particular instance, yes.
Q. And what is that understanding? Where does that come from?
A. From my understanding as an expert witness.
Q. But you can't cite a case to me right now that says that?
A. My understanding is that that is the proper procedure.
Q. But my question was you cannot cite a case?
A. As I am a designer, not an attorney,

Page 57

and I cannot cite it.
Q. I appreciate that. I don't think many attorneys could.
So I'm going to put in front of you Exhibit 484. This is your infringement opinion.
(Whereupon, Plaintiff's Deposition Exhibit No. 484 was marked for identification.)
BY MS. MINOR:
Q. And we're going to skip to page 20 which is -- this is your description of the '701 design patent, right?
A. This is part of the description, yes.
Q. Sorry. It goes on through page 22, correct?
A. Yes, it spans from 19 to page 22.
Q. And you agree you haven't described here in the comments all the features of the claim design, right?
A. It was not the correct procedure to describe absolutely everything here.
Q. This is just your summary?
A. The comments there are bringing forth issues pertinent to the observations.
Q. So fair to say that you -- these are

Page 58

the features you're calling out that sort of had more weight in your analysis; is that what you're saying?
A. That have relevance to the opinions that I offered in the report.
Q. Well, is there anything else distinctive -- let's start with Figure 1 -- that is relevant to your opinion that you left out of the comments?
A. That wasn't the goal here. The goal here was to -- to describe what we're observing in the patent and not to list absolutely everything in the drawing but the relevant items. I don't know if there are in other places in the report references to details that are not specifically called out here.
Q. Okay. So starting with Figure 1.
A. Uh-huh.
Q. The second sentence of the comments, the upper surface of which is ring shaped and has a circular groove, giving a look of a separate circular cover in the middle.
Can you explain to me what you mean when you say circular groove? Is it your opinion that it could just be a flat surface

Page 59

with an etched ring in it or is it more than that?
A. Because it is a design patent, you can only go by what we're seeing here. It does appear to be etched. It could be a very deep groove. I'm calling it a circular groove because it is circular and because we cannot tell how deep it goes, but it is certainly an indentation.
Q. But there are lines within the groove, right?
A. Yes, I did see there are some spiraling lines.
Q. And those aren't described anywhere in your comments. So my question is: What do you view those lines to indicate?
A. They're very fine lines, and you do see them when you zoom in, and it could be a number of things, including it may show that this is a screw thread or that the way that the groove has been cut out, has some detailed edges on it that are not concentric. As far as the design patent goes, it does not tell us one or the other.
Q. Okay. So it's a -- it is a sort of vague, in your opinion, portion of the design?

Page 60

A. I wouldn't call it vague. It -- these are lines that have been included, but they are very detailed and less prominent than the circular groove itself.
Q. But it is unclear to you what those lines are indicating?
A. It's -- it's clear to me that it could indicate a number of things.
Q. Which means it is unclear precisely what it is indicating, right?
A. It is -- it is unclear as to what it is meant to indicate, yes.
Q. Okay. But you do agree that it could be threads?
A. There could be threads in there as one of the possibilities, yes.
Q. Did you consult any treatises or any patent drafting help books to look at, you know, variations of lines in patent drawings to try to figure out what that could indicate?
A. I'm very familiar with the drawing standards as put forth by MPP and within patent drawings that this is not indication of anything that is standardized within the MPP -- MPEP.
Q. And I noticed in Figure 1, your

Page 61

comments, you don't describe anything about the edges, but you agree that those are sharp edges and corners, right? Along the hex.
A. The sides of the hex is what you're referring to?
Q. Yes.
A. And whether the edges that are between the sides of the edges or between the surfaces of the hex, you're asking if those are sharp? They are sharp.
Q. And on Figure 2, you don't note it, but this is also a flat surface, right? At the circle?
A. What do you mean?
Q. Within the groove is a flat surface with no markings, right?
A. My comments to Figure 2 refer back to Figure 1. And in Figure 1, I do talk about the -- the area inside of the circular groove giving the look of a separate circular cover in the metal.
Q. Right. But my question was --
A. Uh-huh.
Q. -- that it is flat, with no markings on it, right?

Page 62

A. It -- in this view or in the combined views, we do understand it to be flat, the center of which is unclaimed, of course, and there are no markings shown.
Q. And in Figure 3, turning to the next page, you don't describe it, but the claim design has that smaller circle depicting an opening, right?
A. Please repeat that. The?
Q. The claim design in Figure 3, the smaller circle.
A. Uh-huh.
Q. Depicts an opening, right?
A. It's -- in this view and combined with the other views, it is clear that it is not a through hole because we don't see it come through the top, but it is clearly an indentation. I'm not sure if that fits your description of opening, but it goes inward.
Q. Well, I just note that there is no shading on it, and I recognize shading in patent drawing to reflect a flat surface and that since that smaller circle does not have shading, despite it being shown everywhere else is open. How deep it goes, nobody knows?

Page 63

A. Right.
Q. But it is open and not a flat surface, right?
A. It does not mean that it is not a flat surface. But what we do recognize is that whatever is within that circle is set back from the outer ring. But the fact that it is not shaded does not mean that it is a rounded surface, for instance. It just means that it's -- in this view alone, it may or may not be a surface; but based upon understanding all of the drawings, we know that there is a surface back there.
Q. So Figure 3 has a small circle in it with no shading whatsoever, right?
A. Yes.
Q. And you said you're familiar with patent drawings, that there is various shading you can use to depict various surface shapes?
A. That you can use, yes; but the absence of which does not mean that a surface does not exist.
Q. So the figures shown in Figure 3 could have any number of different?
A. Surfaces behind that circle, yes.

Page 64

Q. But not extending outward?
A. Because we don't see it extend outward in the other views. So we know that that circle is not an object that extends outward.
Q. Okay. But we can agree that it's certainly not flat?
A. What's certainly not flat?
Q. The circle is not a flat surface flush with the remaining surface of the image?
A. The circle is on the -- the inner circle is a marcation or indentation on the outer surface that is flat, so it is on that same level.
Q. Right. But so you understand what I am saying when I am saying it is open, that it doesn't go all the way through. There is a back somewhere in there, but we don't know how deep, but it is open for some portion?
A. That's my understanding. It is open or it is own indentation.
Q. Okay. And you do comment that it is considerably smaller than the circular groove on top, right?
A. It is considerably and notably smaller than the circular groove at the top.

Page 65

Q. And in your opinion, that's a required feature of any infringing product?
A. That was not the opinion that I put forward.
Q. Okay. So I'm just asking. Is it your opinion that -- I just have noticed that a lot in this report and the other report, that that seems to matter to you, that the circle on the underside of the design on Figure 3 being smaller than the groove on the top side is a distinctive feature of the claim design?
A. It is a distinctive feature of the claim design.
Q. And how much smaller does the circle on Figure 3 have to be than the groove in Figure 1?
A. I don't know how much smaller, but in its current proportions, obviously scale is not relative here but proportions are. It is noticeably smaller. I couldn't tell you how big it could get.
Q. Did you measure to come up with the proportions?
A. No. It was not necessary to, say, use a ruler to measure. Measuring a patent drawing would be incorrect.

Page 66

Q. So you don't know how much smaller this inner circle reflected in Figure 3 needs to be than the groove reflected in Figure 1, but in your opinion, it needs to be smaller?
A. It needs to be noticeably smaller for it to be distinct.
Q. And you cannot tell me how small it has to be for it to be noticeably smaller?
A. That was not part of my analysis. There is a point here as shown, it is noticeably smaller. If it were very, very close, it would no longer be distinct, and I can't tell you at which point one flips to become the other.
Q. Okay. And we already discussed Figure 4 and 5, that both of those reflect a flat bottom, correct?
A. They have a flat bottom, yes.
Q. And it is evident there, you know, the sharp corners on the profile of Figure 4 and 5, sharp corners of both the washer and the nut member?
A. Yeah. There are some chamfered, rounded columns as well. For instance, in Figure 5, we see more sort of rounded corners. What we would call chamfered.

Page 67

Q. Right. But where the washer and the nut member meet is a sharp, 90 degree corner, right?
A. Yes. It is depicted sharp here, yes.
Q. And then if you turn to page 23, what is this showing us? Did you take these pictures?
A. I did, yes.
Q. And this is in your section the accused products? It starts on page 22, right?
A. I'm sorry. What starts on page 22.
Q. The Section B, the accused products?
A. Yes.
Q. And place of purchase?
A. Yes.
Q. So these are images that you took of the accused products?
A. Yes, they are.
Q. But no image shows the accused products in their entirety, right, on that page?
A. Clarify what you mean by in their entirety.
Q. Well, the screw is not depicted in full in any image on this page, right?
A. We see between three pictures, we see

Page 68

different parts of the screw.
Q. Well, actually, the screw is only in one of the pictures, right? It is in two. But the entire screw is in none of them, right?
A. Not one of these images shows the entire screw.
Q. So the accused products are not shown in their entirety in any image on page 23?
A. In these particular images, no. They're illustrating how it looks disassembled and how it looks assembles in sort of one piece.
Q. Well --
A. It is cropped from one of the images, what you're saying, yes.
Q. In the bottom picture, it looks like you used different screws in the washer/nut member to show that using different screws would not accomplish the same look as the accused products together, right?
A. It's to illustrate that opinion, yes.
Q. And did you try those screws in the Ozco product?
A. I may have. I'm not sure. I tried a number of screws in the Ozco product.
Q. And the difference is you're showing

Page 81

similar surface reflected in the accused product, the top of the hex nut?
A. It's wider.
Q. Not noticeably to you, apparently?
A. The outer edge of the annular ring does not extend in this viewpoint to the exact edges of the hex sides.
Q. Okay. So that's actually a different difference than I was asking.
A. Okay.
Q. Okay. So the upper annular surface does not extend all the way, the top of the hex, the flat surface of the hexhead does not extend all the way to the hex flats on the accused product?
A. It is very, very close to the hex flats.
Q. But my question was: And that appears to be thinner than the patent figure?
A. So by thinner, you mean the width from the outer ring of that circle to the inner ring appears to be. It is hard to tell, obviously, because of scale is not relevant within design patents. If we were to measure it, it appears to be very slightly thinner.

Page 82

Q. The accused product?
A. That would not be -- on the accused product, yes. But that would not be relevant because scale is not relevant to design patents.
Q. Okay. And on this image, did you consider the markings on the head of Simpson's screw at all?
A. I did consider them as part of the analysis.
Q. And what did you determine?
A. Markings or marks such as logos or other details are, in this case, in the product itself, barely readable and not very noticeable, do not affect the overall look and things such as logos are also not part of the design patent consideration.
Q. Okay. Well, you'd agree with me that the raised lines that form a circle in between the 3.5 and no equal sign logo and the SWS 22, there are raised lines going in a circular fashion between those, right?
A. We can see that here in the zoomed in image that there are some raised lines as part of that marcation.
Q. But you don't find those to be a

Page 83

substantial difference than the patent figure?
A. It's not -- it doesn't affect the overall look and feel of the product as a whole.
Q. Okay. And moving to page 29, so we've talked about this image, and you agree with me that the smaller circle represents an opening of some sort. We don't know just by looking at it whether there is a back, but we know there is a back based on the other images, right?
A. Correct. Yes.
Q. But the accused product is not an opening in that smaller circle, right?
A. In the accused product, there is an opening that's filled by the screw thread.
Q. Right. So there is only an opening when the accused product is not combined, right?
A. That's correct.
Q. So when combined, there is never an opening in the accused product?
A. A very small gap, let's say, but not a full opening.
Q. Which is reflected in the patent figure?
A. Which is reflected in the patent figure.

Page 84

Q. And is this image, I think it is just blurry, but is this shaft is actually installed in the accused product in this picture, right?
A. Correct. It's coming towards the camera.
Q. And then going on to page 30, the image here does not show the full accused -- the accused product in its full form, right?
A. In this image of the accused product, we only see part of the shaft.
Q. Right. And did you take this picture?
A. I did take this.
Q. And we here see the shear tube, right?
A. We do in this view.
Q. And it's your opinion that that is a trivial difference between the accused product and the patent figure showing a flat bottom surface?
A. It's a -- I did actually call it out here, and it is a very minor difference when the product is viewed as a whole.
Q. And why do you view it as a minor difference?
A. Because the other features are a lot more dominant than that relatively small and

Page 85

almost unnoticeable feature.
Q. And why do you call it almost unnoticeable?
A. Because it surrounds an orifice in that position and it's a common feature you see on a lot of hardware and it's not as unique and different as all the other -- a lot of the other features on the product.
Q. So you give it less weight because it is not something you considered to be a unique feature?
A. It is considered, but it's less distinctive and therefore, it has less effect on the overall look.
Q. I'm going to show you Exhibit 32 which is Ozco's product and exhibit -- I believe this is two exhibits, 29, the washer, and 30, an accused screw.
Now, it is your opinion that Ozco's product is a commercial embodiment of the '701 patent, right?
A. Yes, I do see it as a commercial embodiment of the '701 patent.
Q. Can you tell me the differences between those two products?

Page 86

A. That's obviously not related to the analysis of whether the accused product infringes because the accused product is being compared to the patent.
Q. Okay. My question was: Can you tell me the differences between the accused product and the Ozco product?
A. The differences were not part of the report, but you're asking for a spontaneous list of differences all the --
Q. Well, in your report, you compare Ozco's product to Simpson's product, do you not?
A. Can you show me where?
Q. Starting at page -- sorry -- 50. Sorry. It starts on page 48, comparison of the commercial embodiments to the accused products and it goes on through page 51.
A. Yes.
Q. Okay. So you have provided an opinion that the comparing the commercial embodiments to the accused products. So I'm asking you, with both of those in front of you, to tell me the differences between them which -- and my understanding is part of the comparison is also the differences between them.

Page 87

A. Okay. So the differences, of course, are very minor compared to the overall look and feel. The differences we see, first of all, obviously, as shown in the report, is quite remarkable how similar, if not identical, the dimensions are.
Q. So just so we're not here for four days.
A. Okay.
Q. You're answering my question and we can get to that later. I will walk you through your opinions and ask you questions about them. I am asking you to tell me the differences as you sit here right now between those two products. Differences.
A. So comparing them directly in terms of differences, we see that the tall receiving feature has a different size and different detailing. The connection between the hex sides to the washer feature on the Ozco product is different and we do see some of the weld marks that are different.
The texture that we see is slightly different on the Ozco. It appears more shiny, a touch more gloss. We do see on the Ozco product

Page 88

in the circular groove, that there is little bit of metal and thread on there. Of course, being a physical product, I can take this apart and discover that there is a thread in there.
Q. And just I just want to be sure that it's -- the product is included in the video.
VIDEOTAPE OPERATOR: It is but it is not -- I can zoom in, if you'd like.
MS. MINOR: No. It is okay him holding it.
THE WITNESS: This is Ozco. This is Simpson just for reference.
VIDEOTAPE OPERATOR: It is in the shot.
MS. MINOR: Great.
THE WITNESS: Obviously, at that detail, it is hard to tell.
There is a slight difference in the overall height.
BY MS. MINOR:
Q. Of the nut or the entire?
A. Of the entire product.
Q. And how are you --
A. There are many similarities, obviously.
Q. So how are you holding the Simpson product right now?

Page 101

annular surface and the groove inside the groove is a flat surface, right?
A. Yes, there is a prominent flat area there, yes.
Q. And another distinctive feature in your opinion is that the design patent claims an open hole on its underside that is smaller than the groove on its top?
A. Noticeably proportionally smaller, yes.
Q. But you can't tell me how much smaller or how close in size they can get?
A. What I see is that a substantially different as shown. It is not for me to ascertain exact dimensions to give you.
Q. Well --
A. Based on the proportions, they're substantially different.
Q. You understand the design patent is putting all people on notice of the monopoly of this design, right? That's the point of the design patent, is to put people on notice that this is my claimed design and I have a monopoly on this design, right?
A. It is one way of expressing it, yes.
Q. Okay. So how is someone viewing this

Page 102

design patent supposed to know how much smaller or larger this circle, the inner circle reflected in Figure 3, can be in relation to the groove on top?
A. Well, what is claimed is a substantial difference between the two. It is not the job of the patent to define exact dimensions but the proportions are shown and are claimed.
Q. So you understand that this design patent is claiming a substantial difference between the inner circle reflected in Figure 3 and the groove reflected in Figure 2, but you can't tell me what substantial means in that context?
A. That is not what I said. What I can't do is give millimeters or inches to a design patent. Substantial in this case is referring to it being visually noticeable.
Q. Okay. And you can't tell me what visually noticeable -- what that translates to if I'm designing a product?
A. Yes, that it would be -- that it would be visually very apparent. The difference between the two circles would stand out to the ordinary observer.

Page 103

Q. But they're never side by side like this, right?
A. In the patent drawing, they are side by side.
Q. But in a product, they're not?
A. We're -- we're viewing a patent drawing and we're not comparing to a product.
Q. Right.
A. In this analysis.
Q. When you're looking at prior art products.
A. You're talking about the accused product?
Q. No. I'm talking about the prior art products.
A. I'm sorry, yes. The prior art products. We can tell in the prior art products, the two circles in question are substantially the same. It is -- it is visibly apparent.
Q. Okay. What about on a Nylok, isn't the circles are of different size on the top and the underside, the openings?
A. There are a lot of any locks and they do vary but...

Page 104

Q. It is possible?
A. It's -- can you tell me what's possible?
Q. You can have a Nylok with an opening on the top that looks like it's a different size than the opening on the bottom.
A. That also depends because the Nylok, the opening in the metal component would match the opening at the bottom of the Nylok but there is a -- a second component that is inserted into that top circle that is -- that has a smaller hole. That's the --
Q. Okay.
A. -- plastic part of the Nylok.
Q. So in prior art it has existed, right? We've identified some Nyloks? You've seen them?
A. Yes, the Nylok, the main body portion, the hole of the top of the Nylok is the same as the hole at the bottom in my understanding.
Q. Not my question.
A. Oh, okay. Please be specific with your question.
Q. Okay. So there has existed in prior art Nyloks that have an opening on the top that is a different size than the opening on the

Page 137

A. This is the first table of -- yes, yes, it is.
Q. Okay. And if we skip to page 55, you've pointed out the cap as the -- satisfying the closed cover requirement, right?
A. Yes.
Q. And it's displayed as the blue circle on page 55 in the second image?
A. Yes.
Q. And on page 58 -- so sorry. 55, the cap you've identified under that blue circle, that is the head of Simpson's screw, correct?
A. That is correct.
Q. The head of the SWS screw accused product?
A. Yes.
Q. Okay. And then on page 58, for claim 3, you've pointed to the head of Simpson's screw to satisfy the claim language at the -- towards the end of claim 3 and a head portion of the screw contacts the annular surface, correct? The head portion of screw you've identified with the yellow circle, correct?
A. Yes.
Q. That yellow circle is also the head of

Page 138

Simpson's screw that's used to satisfy the cap element in claim 1?
A. Yes.
Q. And then in claim 4, that again, claim 4, the apparatus of claim 1 wherein the cap includes a tool receiving feature, you have pointed to the head of Simpson's screw to satisfy the cap element of claim 4, correct?
A. Yes.
Q. So as we already discussed, your infringement analysis points to the head of Simpson's screw to satisfy the cap element in claim 1 and the head portion of the screw element in claim 3?
A. Yes, different surfaces, of course, but of the same item, yes.
Q. Oh, please explain the different surfaces. So what surface of the head of Simpson's screw are you mapping the cap element of claim 1 to?
A. The description describes that the screw or the head portion of the screw contacts the annular surface so it is therefore the underside of the head.
Q. Okay. So on 58, though, you've got a

Page 139

yellow circle covering the head of Simpson's screw. Are you saying that's covering just the bottom of the head of Simpson's screw or is that --
A. That diagram is marcating the head as a whole and not just a particular surface.
Q. Okay. And the head as a whole also constitutes in your opinion the cap in claim 1?
A. The top surface of the head is what creates the closed cover.
Q. So are you making any distinction in the head of the screw, head of Simpson's screw for satisfying the cap element and the head portion of the screw element?
A. There are different parts of the same screw that fulfill these two separate claims.
Q. Okay. Can you explain to me how that works?
A. In claim 3, it is the underside of the head of the screw that satisfies the claim, whereas in claim 1, it is the upper surface of that same head that satisfies the closed surface or cap of the claim.
Q. Okay. So different sides of the head of the screw, but it's the head of the screw

Page 140

satisfying both elements?
A. Yes. It's the same head of the same screw.
Q. Okay. And what is your understanding -- you understand, first of all, that the Court has construed cap to be a closed cover?
A. Yes.
Q. And what is your understanding of what a closed cover is?
A. In the context of this, it is a cover or a surface that is blocking access to the elements below it.
Q. Okay. And in claim 5, you show that the tool receiving feature claimed in claim 5 is the tool receiving feature in the head of Simpson's screw, right?
A. It is a receiving feature in the accused product aligns to the claim, yes.
MS. MINOR: Can you please read back my question?
(Whereupon, the record was read as requested.)
THE WITNESS: I'm actually saying not that exactly. What I'm pointing out is that it

Page 141

aligns to the claim.
BY MS. MINOR:
Q. The picture on page 59 for claim 5 is a picture of the head of Simpson's screw with the tool receiving feature denoted by a red line, correct?
A. Correct.
Q. So the tool receiving feature in the head of Simpson's screw is what you are mapping to claim 5, correct?
A. Yes.
Q. And what did you do to determine that the tool receiving feature does not -- well, do you know whether the tool receiving feature is a hole that goes through the head of Simpson's screw?
A. To map to this claim, that would be irrelevant.
Q. Well, what did you do to determine whether the head of Simpson's screw is a closed cover?
A. The -- I've analyzed the physical product itself and it does act as a closed cover. It stops anything getting inside.
Q. Well, if you go to claim 3 on page 58.

Page 142

A. Uh-huh.
Q. You've identified everything under the head of Simpson's screw in green and identified it as the shaft of the screw, correct?
A. Yes, it's annotated as the shaft, yes.
Q. Okay. And we've just seen that there is an opening through the head as shown on page 59 for claim 5, correct?
A. There is a recess as we know, yes.
Q. And did you do anything to determine whether that recess goes all the way through the head such that it is not in fact a closed cover?
A. It is not an opening that goes all the way through. There is a surface that is visible below it.
Q. Well, when you say it in that, are you referring to the head of the screw or just the screw in general?
A. The surface below it belongs to the aperture and the aperture is in the top surface of the head.
Q. So did you read Mr. Pratt's non-infringement rebuttal report?
A. I did.
Q. And did you see in Mr. Pratt's report

Page 143

where he measured the opening in the head of the screw and saw that the opening actually goes through the head of the screw and into the shaft?
A. It continues past the point of the bottom of the head, yes, and into the neck.
Q. Okay. So you believe that your infringement opinion is consistent with the Court's claim construction order, right?
A. Yes.
Q. And that is because in your opinion, the Court's claim construction does not limit -- does not prevent you from mapping separate elements to the same component of the accused device; is that correct?
A. And when you say elements, do you mean elements of the claim or elements of the product?
Q. In your opinion, the Court's claim construction order does not prevent you from mapping separate elements from the '998 patent to the same component of the accused product?
A. Correct.
Q. Okay. I'd like to now talk about your experience.

Page 144

Do you have an engineering degree?
A. I have a degree in a related field, industrial design.
Q. And can you tell me what industrial design is?
A. It is a form of engineering that also accounts for usability and esthetics.
Q. And do you work with engineers?
A. I work with electronic engineers and mechanical engineers.
Q. And you are CEO of Teams Design USA; is that right?
A. That is correct.
Q. And so does Teams Design employ engineers?
A. Yes.
Q. And you work with them -- well, tell me what Teams Design does.
A. Teams Design designs mass made products, consumer products and industrial products.
Q. So does Teams Design come up with the ideas for products and then design them and put them to market or do you work with other companies?

Page 313

statement of your opinion that item 30 does not anticipate the '701 design patent?
A. This is one of a number of tables and there are paragraphs outside of tables that also provide opinion.
Q. Right. But specific as to item 30?
A. Yes. Specific to item 30, there are paragraphs that are not in the table.
Q. Okay. So but your opinion as to why item 30 does not invalidate the '701 patent is contained in your report, either in the paragraphs preceding the table or in Table 1?
A. Yes.
Q. The images you show here, are these images that you took?
A. No.
Q. They're images from Mr. Smith?
A. Correct. I believe they're from his report.
Q. And if we go to Table 2 starting on page 69.
A. Okay. The continuation of Table 2 on page 69.
Q. I think that's the start of Table 2.
A. It starts on page 68. Page 2 might be.

Page 314

That's it. Yeah.
Q. I just turned to the page. Okay. Thank you.
So Table 2 is your comparison of item 31 to the figures of the '701 patent, correct?
A. Yes.
Q. Item 31, did you also just rely on the image from Mr. Smith's report?
A. There were multiple images in different angles, plus my own knowledge of similar Nylok locks.
Q. Okay. And you note that the Nylok has a bulging ring on the top, right?
A. Yes.
Q. And you state that that's a distinctive difference between the item 31 and the '701 design patent, right?
A. It's distinct because it's very unusual in the world of nuts to have a bulging ring like that. So yes, it is a distinctive difference.
Q. Okay. And if you turn -- so your opinion regarding item 31 is contained in this table and in the paragraphs preceding it?
A. Yes. And the paragraphs, yeah, before and after, yeah.

Page 315

Q. But there is no additional opinion regarding item 31 not contained in your report?
A. Correct.
Q. And Table 3 I think starts at page 71.
A. Yes.
Q. This also has the bulging ring on the top, correct?
A. Yes.
Q. And do you think a bulging ring compared to the flat surface of the '701 design patent is a significant difference?
A. Yes, particularly for one skilled in the art.
Q. And that's because, in your opinion, one skilled in the art recognizes the bulging ring as a Nylok?
A. Yes. It is a typical signifier of a Nylok.
Q. Okay. What about an ordinary observer?
A. The ordinary observer, as we've defined, would also recognize it.
Q. And why is that?
A. The ordinary observer has knowledge of prior art and of items like this.
Q. Okay. An ordinary observer, in your

Page 316

opinion, recognizes a Nylok as a Nylok?
MS. MORAN: Object to the form.
BY MS. MINOR:
Q. Recognizes a nut with a bulging ring on top to be a Nylok?
A. Recognizes the visual difference created by the bulge as being different from or be considered a regular nut.
Q. And why is that?
A. Because it is a visually distinctive feature that you can't help but see.
Q. Okay. So the '701 patent is flat and the Nylok has a bulging ring and you can't help but see the bulging ring; is that right?
MS. MORAN: Object to the form.
THE WITNESS: That's not what I said, but the knowledge of the -- the knowledge that we -- that the ordinary observer has here in the prior art is that nuts would typically have a flat or upper surface as opposed to the bulge that we're seeing here.
BY MS. MINOR:
Q. Would that ordinary observer also know that nuts typically have a flat bottom surface?
A. Yes.

Page 317

Q. So on page 73 in Table 3, we're looking at Figures 4 and 5, and you state that again the bulging ring at the top of item 72 is quite distinctive, giving the overall look of a stubby, rounded object rather that the rectangular angled one of the patent figures.

So is it your opinion that a rounded -- the rounded features just around the top are what are different, or is it your opinion that the item 72 depicted there is just doesn't have the rectangular angled sides of the patent figures?

MS. MORAN: Object to the form.

THE WITNESS: The overall look is definitely enhanced by the very rounded bulging top there. When you see this object, the bulging top makes the sides also look like they are curved. It's just an optical illusion driven by the bulging top that changes the overall look and feel.

BY MS. MINOR:

Q. Okay. And you don't think that the shaft sticking out of the bottom of item 72 in combination with item 73 is renders the images any different than Figures 4 and 5?

Page 318

A. I'm sorry. I will have to hear that one again.

Q. Well, what do you think of the bottom, what is your opinion as to the bottom flat surface of the '701 patent and how is that not substantially different than the shaft sticking out the bottom of item 72 and 73 combined?

A. Because again seeing the thread there would be not the most distinctive feature because screws and bolts commonly show threads. And so the distinctive features are the elements that are different from normal. And so what stands out about the combination of 73 and 72 is the somewhat rounded cap, very unusual to see like that.

Q. Okay. So if I understand you, common features, despite that they're visually noticeable, the fact that they're common means that they don't create -- they don't take -- they don't have a role in the overall impression of the prior art?

MS. MORAN: Object to the form.

THE WITNESS: Yeah. That's not true.

BY MS. MINOR:

Q. I guess my question is: How do you form an overall impression of the prior art?

Page 319

A. So the overall impression is obviously visually read from the images, and it's assumed that based on these images, we understand the three-dimensional form. And so the -- the elements that are most distinctive and different from the prior art that we have knowledge of are the ones that come to the forefront are more noticeable, in your words. They are visible but more noticeable elements that are completely mundane and common and expected among the majority of prior art would have less prominent in the overall visual impression.

Q. Okay. So is it your opinion that the shaft that sticks out of the accused product is because it is expected to be there, it does not cause a visual disease similarity from the claim designs of the '701 patent?

A. I wouldn't use the word expected, but I can help clarify. It is not visually distinct or anything that would catch the eye because of that distinctiveness.

Q. Okay. But you're comparing the overall impression of the accused product to the '701 patent claims, right?

Page 320

A. Yes.

Q. For infringement purposes?

And when just comparing the claim design and the accused product, is it not visually distinct, just those two products together, does the shaft sticking out of the accused product, is it not visually distinct from the flat surface of Figures 4 and 5 on the underside of the washer/nut member?

MS. MORAN: Object to the form.

THE WITNESS: It is clearly not present in the patent, but it is not one of the most important features that are prominent.

BY MS. MINOR:

Q. Okay. And I'm not asking about important features.

A. Uh-huh.

Q. Because you understand the first part of design patent infringement is just overall similarity?

MS. MORAN: Object to the form.

THE WITNESS: More or less, it's about whether something is substantially different.

BY MS. MINOR:

Q. Okay. I think we're speaking the same

Page 321

language, just in reverse.
A. There is a difference.
Q. You're opining on infringement. So substantially the same is the standard, right?
A. Yes.
Q. So when you're holding the accused product and looking at the '701 patent on their face, accused product, '701 patent, are those substantially the same?
A. As put forward in my reports, yes, they are.
Q. And what you're saying is the screw is substantially the same as the images Figure 4 and 5. The shaft of the screw sticking out at the bottom of the accused product is substantially the same as the flat surfaces in Figures 4 and 5 of the '701 patent?
MS. MORAN: Object to the form.
THE WITNESS: I am confused by that statement. The -- could you repeat her --
(Whereupon, the record was read as requested.)
BY MS. MINOR:
Q. So the question being the second part of that, the shaft of the screw that extends

Page 322

several inches beyond the bottom of the accused product.
A. Uh-huh.
Q. You have it there. You're saying that that is substantially the same as Figure 4?
A. That's not what I'm saying.
Q. Okay. Is it substantially the same?
A. The accused product is substantially the same as the patent, but you're saying, you're referring to just the screw which is different.
Q. Okay. So look at a profile of the accused product.
A. Side view?
Q. Yes. In the same view as the '701 patent. And in your opinion, Figure 4 of the '701 patent is substantially the same as what you're looking at in your hand?
MS. MORAN: Object to the form.
THE WITNESS: As stated, the accused product which I'm holding in my hand is substantially the same as the patent as seen by the ordinary observer.
BY MS. MINOR:
Q. Okay. And that is because you are not

Page 323

seeing the shaft of the screw?
MS. MORAN: Object to the form.
THE WITNESS: Less distinctive features are not disregarded but they are acknowledged, but the distinct elements are those that become more prominent. But the prominent elements of this align directly to the patent.
BY MS. MINOR:
Q. This helps me. This is where I'm getting -- so it is not that you can't see the shaft of the screw, it is that it -- in your opinion, it is less distinct than the other portions of the accused product; is that correct?
MS. MORAN: Object to the form.
THE WITNESS: It is correct that a screw, the functional part of the screw would be less -- would have less weight in the analysis.
BY MS. MINOR:
Q. Okay. If --
A. Terms I've used before.
Q. If we disregard function. If we are looking just at the drawings of the patent and looking just at the accused product, are they substantially the same, disregarding function,

Page 324

we're just looking at overall visual similarities. Is it your opinion that the accused product with the shaft of the screw extending from the bottom is visually the same as the figures in the '701 patent?
A. It is substantially the same as I have detailed, yes.
Q. And why is that? Because my question said disregarding function. So disregarding function, why are they visually the same?
MS. MORAN: Object to the form.
THE WITNESS: As there are lots of details in my report in that regard. But because the distinct visual items have more bearing on the overall impression.
BY MS. MINOR:
Q. And when you say distinct visual items, you are referring to features that are distinct from prior art?
A. Yes.
Q. Okay.
A. From the mass of prior art.
Q. Okay. So when I'm asking for just the first test of design patent infringement, overall visual similarities, no reference to

Page 325

prior art, overall visual similarities?
A. But the test is still of the ordinary observer with knowledge of prior art. You don't --
Q. That's fine.
A. -- view it in a bubble.
Q. That's fine. My question is disregarding prior art.
A. That's not my analysis.
Q. Okay. So you do not have an opinion divorced from prior art as to whether the accused product is substantially similar to the figures of the '701 patent?
MS. MORAN: Object to the form.
THE WITNESS: We are talking about it being substantially the same. And obviously, my role here is only to look at through the eyes of the ordinary observer and not to give a hypothetical personal opinion.
BY MS. MINOR:
Q. Okay.
A. Without that.
Q. You do not have an opinion whether the accused product is substantially similar to the figures of the '701 patent that does not take

Page 326

into consideration the prior art?
A. It -- it's not right for me to sit here and provide opinion that ignores the view of the ordinary observer.
Q. And that's fine. So I'm just confirming that your opinion does not consider the overall visual similarities between the accused product and the '701 patent without reference to prior art?
MS. MORAN: Object to the form.
THE WITNESS: My opinion is that the ordinary observer would have knowledge and use of prior art in forming the opinion of the visual aspects.
BY MS. MINOR:
Q. Okay. And your opinion that the screw shaft is not a distinct feature is because the screw shaft appears in the prior art?
MS. MORAN: Objection.
THE WITNESS: It slightly misstates my comment. The screw shafts such as that are extremely common in prior art known by the ordinary observer and therefore have lesser weight in the overall visual impression.

Page 327

BY MS. MINOR:
Q. Okay. So let's go to exhibit that I've marked as 488. This is the rebuttal opinion of John Pratt to your infringement analysis.
(Whereupon, Plaintiff's Deposition Exhibit No. 488 was marked for identification.)
MR. STORM: That's 487.
MS. MINOR: You can just cross it off. I marked it and then didn't use it.
MR. STORM: Oh, yeah.
MS. MINOR: So it will be 488.
BY MS. MINOR:
Q. Okay. On page 38 of Mr. Pratt's opinion, he provided a possible design around opinion. Do you see that?
A. Yes. It starts on page 38.
Q. Have you reviewed that opinion?
A. I have.
Q. And do you agree with it?
MS. MORAN: Objection to the form.
THE WITNESS: Do I agree with the section?
BY MS. MINOR:
Q. Yes. It is an opinion about -- we can

Page 328

walk through it. I was just trying to get you out of here.
So Mr. Pratt opines that by reducing the recess in the hexhead washer from its current depth to a smaller depth of .063 inches, the head of the screw would not be disposed within the intermediate cylindrical surface as required by claim 1 of the '998 patent. Do you see that?
A. Yes.
Q. And do you agree with that?
A. In my understanding, it would be still substantially the same.
Q. I'm sorry. We're talking about the '998 patent.
A. Yes. In my understanding of the Doctrine of Equivalence, the changes to a specific item need to have substantial difference and this would still remain substantially the same. It is an extremely minute change.
Q. Okay. Let's back up. You understand there is no Doctrine of Equivalence theory asserted in this case, right?
A. That's not my -- I don't know if it's

STATE OF ILLINOIS)
) ss.
COUNTY OF COOK)

I hereby certify that the witness in the foregoing deposition, PAUL HATCH, was by me duly sworn to testify to the truth, the whole truth and nothing but the truth, in the within-entitled cause; that said deposition was taken at the time and place herein named; and that the deposition is a true record of the witness's testimony as reported by me, a duly certified shorthand reporter and a disinterested person, and was thereafter transcribed into typewriting by computer.

I further certify that I am not interested in the outcome of the said action, nor connected with nor related to any of the parties in said action, nor to their respective counsel.

IN WITNESS WHEREOF, I have hereunto set my hand this 19th day of August, 2019.

Reading and Signing was:
_X_ requested ___ waived ___ not requested

GINA M. CALLAHAN, CSR NO. 084-00623

Exhibit D

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

SIMPSON STRONG-TIE COMPANY, INC., Plaintiff, vs. OZ-POST INTERNATIONAL, LLC, dba OZCO BUILDING PRODUCTS, Defendant.	Case No. 3:18-cv-01188-WHO

EXPERT REPORT OF PAUL HATCH REGARDING INFRINGEMENT OF U.S. PATENTS D798,701 AND U.S. 9,957,998

TABLE OF CONTENTS

I, Paul Hatch, hereby make the following disclosure pursuant to Fed. R. Civ. P. 26(a)(2).

I. INTRODUCTION

1. I have been asked by OZ-Post International, LLC ("OZCO") to express an opinion regarding Simpson Strong-Tie Company, Inc.'s ("Simpson") infringement of the design and utility patents at issue.

2. The design patent at issue is OZCO's U.S. Design Patent No. D798,701 ("the '701 Patent") titled "Simulated Bolted Hardware".

3. The utility patent at issue is OZCO's patent U.S. Patent No. 9,957,998, ("the '998 Patent") titled "Mounting Hardware".

4. The infringing products are Simpson's Outdoor Accents Hex Head Washer and Structural Wood Screw (collectively, "the Accused Products").

5. I understand my task is to review materials and offer my opinion, perspective and insights regarding this subject. I hold the opinions expressed in this report, but as my study of the case continues, I may acquire additional information that leads to new insights relevant to these opinions. With that in mind, I reserve the right to supplement this report if and when such additional information becomes known to me. I may also provide supplemental and rebuttal reports at a later date, in response to arguments which may be proposed by the Simpson.

A. Summary Of Opinions

6. I have compared the '701 Patent to the Accused Products. I have considered whether there is infringement in light of the prior art.

7. Having performed this analysis and evaluation, I conclude that the overall appearance of the Accused Products is such that an ordinary observer familiar with the prior art, giving such attention as a purchaser usually gives, would find the Accused Products to be

substantially the same as the ’701 Patent, inducing him or her to purchase one supposing it to be the other. Thus, it is my opinion that the Accused Products infringe the ’701 Patent under 35 U.S.C. § 271(a).

8. An ordinary observer would perceive that the Accused Products feature only inconsequential differences from the design claimed by the ’701 Patent. These minor differences do not in any way impact their substantial similarity in overall appearance, and similarity in visual impression, to the ’701 Patent. An ordinary observer would find the resemblance more than sufficient to deceive them to purchase the Accused Products, believing that they are the patented designs covered by the ’701 Patent.

9. I have compared claims 1-5 and 7 of the ’998 Patent to the Accused Products.

10. For the reasons discussed in this report, I conclude that the Accused Products directly infringe claims 1-5 and claim 7 of the ’998 patent under 35 U.S.C. § 271(a).

11. I conclude that third-parties (i.e., the Do-It-Yourself (“DIY”) or a professional contractor) directly infringe claims 1-5 and 7 of the ’998 Patent and are encouraged to commit such direct infringement by following Simpson’s instructions to use the Outdoor Accents Hex Head Washer and Structural Wood Screw together. By providing these instructions commit direct infringement, Simpson induces infringement of the ‘998 Patent.

12. I also conclude that Simpson’s Outdoor Accents Hex Head Washer is a material part of the invention in claims 1-5 and 7 of the ’998 Patent and is not a staple article or commodity of commerce that is suitable for substantial non-infringing uses. As such, by providing the Accused Products to third parties, Simpson contributorily infringes the ‘998 Patent.

B. Background And Qualifications

13. I am the CEO of TEAMS Design USA Inc., a global product design consultancy. TEAMS Design is an award-winning design firm specializing in global product-oriented brand

development. I have over 25 years of product design and industrial design experience in a variety of areas including drill bits, driver bits and augers, and have designed -or led the design of many hundreds of mass-produced products purchased by contractors and DIYers at home centers and online.

14. I reside at 718 S. Oakley Blvd., Chicago, IL. I hold a Bachelor of Arts degree with honors (BA (Hons)) in Design for Industry (Industrial Design) from the University of Northumbria at Newcastle, United Kingdom. While studying to obtain my honors degree in Design For Industry, I took courses covering subjects including technical drawing, computer skills, office and business management skills, ergonomics, product evaluation and usability, production techniques, model making and prototyping, usability studies, engineering and production, graphics, and verbal presentation.

15. I am the named inventor in over 45 patents (both design and utility). I am also a Certified Expert Witness by the Industrial Designers Society of America ("IDSA"). See Appendix A.

16. I am not an attorney and offer no legal opinions. In the course of my work as a designer and managing teams of designers, I have gained an understanding of the training, knowledge, skills, and abilities of a person skilled in the art of product design and industrial design. Through this work, I have also gained an understanding of how a person who purchases a particular product perceives and appreciates the visual appearance and or functional merits of a product's design, and I use this understanding to opine on how the particular purchaser or ordinary observer would answer questions raised in the examination of design patents, utility patents, trademarks and trade dress claims.

17. The goal of my practice is to design mass-produced products to be attractive, useful, and profitable globally. I strive to design products that meet the needs of retail stores, merchandising professionals, and commercial buyers, and effectively communicate the value of products to consumers. My ability to understand the product attributes that define a successful aesthetic and usable end product with product users is based on decades of user research and iterative design of hundreds of products.

18. Another important part of my industrial design career is in technical development for production. When designing objects for mass manufacture it has always been important to me to closely define the materials, production techniques and the assembly of parts to ensure that the concepts created in the ideation phase translate well into production. The efficient production of a product is of equal importance to me to the aesthetics and marketability.

19. My experience with how products are made and how they are perceived spans the product development cycle from early product exploration to the design of high volume, mass produced products in various industries sold worldwide. Further information on my professional experience is detailed in Appendix A.

C. Compensation And Prior Testimony

20. I am being compensated at a rate of $595 per hour to provide analysis and testimony in this proceeding. My compensation is not contingent on the outcome of any matter or the specifics of my testimony. I have no financial interest in this matter.

21. I have previously provided expert testimony in several other patent-related matters. I disclose the details of this activity in Appendix B.

D. Materials And Information Considered

22. In forming my opinions, I have considered the materials I identify in this expert report which are listed in Appendix C

E. The Profession Of Industrial Design

23. Merriam-Webster defines industrial design as "design concerned with the appearance of three-dimensional machine-made products." While this certainly captures the essence of the task which industrial designers focus on, I have often described the profession of Industrial Design as a combination of art and engineering, in which aesthetic considerations are driven by the needs of end-users and the marketplace, and the limitations of technology and mass production. The ultimate goal of a professional industrial designer is to create useful products that will find broad acceptance with consumers, and commercial success for those who bring the products to market.

24. A critical component of an industrial designer's skill set centers on his or her ability to understand the needs of consumers in the marketplace, often before the design activity starts. The foundation for good design is the ability to know just who you are designing for, and what that design needs to accomplish in order to meet their needs and expectations with respect to usability, functionality and appearance.

25. To accomplish this foundational aspect of the design process, industrial designers are trained as keen observers of those for whom they are designing, whether an ordinary consumer or a professional tradesman. Such observations may take place through formal methodologies of ethnographic or "user research", and / or less formal activities which provide insight into what a customer wants to purchase, what drives those purchasing decisions, and the experiences involved in different purchasing scenarios.

26. It is this ability to perceive design in the context of the ordinary observer, as discussed more fully below, which underscores my infringement conclusions regarding the '701 Patent throughout this report, and my understanding of the ordinary observer is central to the perspective from which I reach the conclusions and opinions offered in this report. Even if I do

not repeat this each time, it should be made clear that I have conducted my infringement analysis of the ’701 Patent from the perspective of an ordinary observer.

F. Methodology Used In Preparing This Report

27. I have examined and understood all figures of the ’701 Patent and the claims of the ’998 Patent.

28. I have reviewed the relevant material cited as prior art by Simpson, but I have not independently determined whether the “prior art” cited by Simpson is actually prior art to either the ’701 Patent or the ’998 Patent.

29. As a result of my understanding of the requirements for **design patent** infringement analysis in light of Egyptian Goddess, my methodology may be described as follows:

a. I have presented each view of the ’701 Patent, and provide comments upon the claimed designs.

b. I performed a comparison of each view of the ’701 Patent to physical samples of Simpson’s Outdoor Accents Hex-Head Washer and Structural Wood Screw. An overview of my findings and opinions are presented in this document.

30. My assessment of whether there is infringement of the ’701 Patent was made through the application of my experience and expertise as an industrial designer, to understand and explain how an ordinary observer would perceive the designs at issue, giving the attention that an ordinary observer would give to such a purchase, and with the assumption that the ordinary observer has knowledge of the prior art.

31. With respect to the photographs of the Accused Products and Commercial Embodiments featured in this report, while a photograph of any physical product will never exactly duplicate the perspective and views depicted by patent drawings, it is important to note

that these photographs are provided solely for illustrative purposes, and that my opinions were formed entirely through an examination of actual samples of these products.

32. As a result of my understanding of the requirements for **utility patent** infringement analysis, my methodology may be described as follows:

a. I reviewed the Court's claim construction of the '998 Patent.

b. I performed a comparison of each asserted claim's limitation, applied the Court's construction of specific terms to physical samples of the Accused Products. My findings are presented in this document.

c. I have analyzed the OZCO product to compare it to the claims of the '998 Patent, and understand whether it embodies the claims of the '998 patent. I presented photographs of the Commercial Embodiments, and explained the results of my analysis.

II. LEGAL STANDARDS

A. Legal Principles In Analysis Of Design Patent Infringement

33. As I mentioned above, I am not a lawyer. I am an industrial designer and base my analysis here on the legal guidelines provided to me. But the opinions expressed and reasoning applied are those of an experienced industrial design consultant viewing the relevant questions from the relevant perspectives (e.g., ordinary observer, person of ordinary skill in the art.)

34. Based on this, I understand that with respect to design patent infringement, that "[l]f, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other." Gorham Co. v. White, 81 U.S. 511, 528 (1872). In other words, a design patent is infringed if an ordinary person would be deceived by reason of the common features in the claimed and accused designs which are ornamental.

35. Design patents typically are claimed as shown in drawings. The scope of the claim of a patented design "encompasses 'its visual appearance as a whole," and in particular 'the visual impression it creates.'" Contessa Food Prods., Inc. v. Conagra, Inc., 282 F.3d 1370, 1376 [62 USPQ2d 1065] (Fed. Cir. 2002) (quoting Durling v. Spectrum Furniture Co., 101 F.3d 100, 104-05 (Fed. Cir. 1996))

36. I understand that the overall appearance of the designs must be substantially similar for infringement to be found, and that differences in specific features or individual elements of a design are not relevant to infringement if the overall appearance of the accused design is substantially similar to the patented design. Infringement analysis requires a determination of whether the patented design as a whole is substantially similar in appearance to the accused design, and the patented and accused designs do not have to be identical for design patent infringement to be found. Braun Inc. v. Dynamics Corp. of Am., 975 F.2d 815, 820 (Fed. Cir. 1992.) It is the visual appearance of a design as a whole, and the visual impression it creates, which is key to determining infringement. OddzOn Prods., Inc. v. Just Toys, Inc., 122 F.3d 1396 (Fed. Cir. 1997)

37. Further to the above, I have been made aware of the court's ruling in Schnadig Corp v. Gaines Mfg. Co., which stated that "[w]e are mindful of the oft-quoted words of the Supreme Court in Graver Tank & Mfg. Co., Inc. v. Linde Air Products Co., 339 U.S. 605, 607, 70 S.Ct. 854, 856, 94 L.Ed. 1097 (1950): 'One who seeks to pirate an invention, like one who seeks to pirate a copyrighted book or play, may be expected to introduce minor variations to conceal and shelter the piracy. Outright and forthright duplication is a dull and very rare type of infringement.'" Schnadig Corp v. Gaines Mfg. Co., 494 F.2d 383, 391-92 (6th Cir. 1974.)

38. It is my understanding that, when comparing a patented design with the accused product, even if various ornamental elements which make up the whole of a design may be slightly different in isolation, infringement occurs so long as the overall visual impression is substantially similar. See Victor Stanley, Inc. v. Creative Pipe, Inc., 269 F.R.D. 497 (D. Md. 2010).

39. I have also been informed that the court in Crocs, Inc. v Int'l Trade Comm'n held that ". . . minor differences between a patented design and an accused article's design cannot, and shall not, prevent a finding of infringement." Crocs, Inc. v Int'l Trade Comm'n, 598 F.3d 1294, 1303 (Fed. Cir. 2010). Rather, the question is one of "substantial similarity" under the "ordinary observer" test. Id. The underlying idea is that customers looking to purchase a patented product should not be deceived by a similar looking accused product. Id.

40. Similarly, I have been informed that "the mandated overall comparison is a comparison taking into account significant differences between the two designs, not minor or trivial differences that necessarily exist between any two designs that are not exact copies of one another." Int'l Seaway Trading Corp. v. Walgreens Corp., 589 F.3d 1233, 1243 (Fed. Cir. 2009).

41. I am also aware that infringement must be determined "in light of the prior art" by "applying the ordinary observer test through the eyes of an observer familiar with the prior art." Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 677 (Fed. Cir. 2008) (emphasis added). Thus, the hypothetical ordinary observer is presumed to have a complete knowledge of all pertinent prior art.

42. I further understand that design patent infringement is a question of fact, which the patent owner must prove by a "preponderance of the evidence." L.A. Gear, Inc. v. Thom

McAn Shoe Co., 988 F.2d 1124 (Fed.Cir.1993), and that design patents are presumed to be valid. 35 U.S.C. § 282(a).

B. The Significance Of Prior Art

43. I understand that, subject to certain exceptions, "prior art" generally refers to a design that was patented, described in a printed publication, on sale, in public use, or otherwise available to the public anywhere in the world before the effective filing date of the patent. One exception provides that such disclosures made directly or indirectly by the inventor are not prior art to the patent, unless the disclosure was made more than one year before the effective filing date of the patent.

44. I understand that, under the ruling set forth in Egyptian Goddess, "where there are many examples of similar prior art designs... differences between the claimed and accused designs that might not be noticeable in the abstract can become significant to the hypothetical ordinary observer who is conversant with the prior art." Egyptian Goddess, Inc. v. Swisa, Inc., 543 F.3d 665, 678 (Fed. Cir. 2008).

45. Further to the above, it is my understanding that consideration of prior art is not required in every case, only those in which the patented design and the accused design are "substantially the same." In such cases where the two designs are not "plainly dissimilar," the infringement analysis "will benefit from a comparison of the claimed and accused designs with the prior art. Egyptian Goddess, 543 F.3d at 678.

46. I have been informed that, if prior art is to be considered in comparing the patented design and the accused design under the three-way comparison analysis laid out by the court in Egyptian Goddess, it is the accused infringer's responsibility to come forward with that prior art. Egyptian Goddess, 543 F.3d at 678-79. ("Under the ordinary observer test… it makes

sense to impose the burden of production as to any comparison prior art on the accused infringer.")

C. Functionality And Design Patents

47. It is my experience that most products and designs sold into the stream of commerce have some function or purpose. Thus, I understand that all articles of manufacture have a function and that in a design patent "[w]here a design contains both functional and non-functional elements, the scope of the claim must be construed in order to identify the non-functional aspects of the design as shown in the patent." OddzOn 122 F.3d at 1396,1405.

48. I understand that, with respect to patenting such designs, "a design patent, unlike a utility patent, limits protection to the ornamental design of the article… However, when the design also contains ornamental aspects, it is entitled to a design patent whose scope is limited to those aspects alone and does not extend to any functional elements of the claimed article." Richardson v. Stanley Works, Inc., 597 F.3d 1288, 1293-94 (Fed. Cir. 2010) (internal citations omitted).

49. I understand that the fact that an element of a design serves a functional purpose does not mean that the specific design of the element is dictated by functional considerations. L.A. Gear 988 F.2d at 1117, 1123. L.A. Gear acknowledged that certain elements comprising the claimed design of an athletic sneaker each had a utilitarian purpose, including a "delta wing" supporting the foot and reinforcing the shoelace eyelets, side mesh paneling further supporting the foot, a "moustache" at the back of the shoe cushioning the Achilles tendon and reinforcing the rear of the shoe, and the particular positioning of each of these elements within the design of the shoe. Id. at 1123. Nevertheless, the Court explained that "the utility of each of the various elements that comprise the design is not the relevant inquiry with respect to a design patent" because whether a design is primarily functional or primarily ornamental requires viewing the

claimed design "in its entirety." Id. See also Berry Sterling Corp. v. Pescor Plastics, Inc., 122 F.3d 1452, 1455 (Fed. Cir. 1997) ("[T]he determination of whether [a] patented design is dictated by the function of the article of manufacture must ultimately rest on an analysis of its overall appearance."). As another example, in Hupp v. Siroflex of Am., Inc., the Federal Circuit separated the function inherent in a concrete mold—producing a simulated stone pathway by molding concrete—from the particular pattern of the stone produced by the mold itself—an aesthetic design choice. 122 F.3d 1456, 1461. Thus, even though the claimed design pattern was embedded within the functional concrete mold, the proper analysis required a determination of whether the design pattern within the mold—and not the concrete mold itself—was "dictated by" its function.

50. With respect to the foregoing legal principles, I have been informed that courts have held that non-functional and functional aspects of a patented design are distinguished to ensure that only the non-functional aspects of the patented design are considered in the analysis. See OddzOn 122 F.3d at 1396, 1405 ("Where a design contains both functional and nonfunctional elements, the scope of the claim must be construed in order to identify the non-functional aspects of the design as shown in the patent.") This is because a design patent only protects the novel, ornamental features of the patented design. See KeyStone Retaining Wall Sys., Inc. v. Westrock, Inc., 997 F.2d 1444, 1450, 27 USPQ2d 1297, 1302 (Fed.Cir.1993); Lee v. Dayton–Hudson Corp., 838 F.2d 1186, 1188, 5USPQ2d 1625, 1627 (Fed.Cir.1988) ("[I]t is the non-functional, design aspects that are pertinent to determinations of infringement.")

51. The courts have not "mandated applying any particular test for determining whether a claimed design is dictated by its function and therefore impermissibly functional." Ethicon Endo-Surgery, Inc. v. Covidien, Inc., 796 F.3d 1312, 1329 (Fed. Cir. 2015). Courts

have, however, "focused [] on the availability of alternative designs as an important — if not dispositive — factor in evaluating the legal functionality of a claimed design" as a first step. Id. at 1329-30. For example, the L.A. Gear court referenced the evidence of many alternative designs that accomplished the same functionality associated with the underlying athletic sneaker. 988 F.2d at 1123. The Federal Circuit has also noted that "[w]hen there are several ways to achieve the function of an article of manufacture, the design of the article is more likely to serve a primarily ornamental purpose. L.A. Gear, 988 F.2d at 1123; see also Rosco, Inc. v. Mirror Lite, Co., 304 F.3d 1373, 1378 (Fed. Cir. 2002) ("[I]f other designs could produce the same or similar functional capabilities, the design of the article in question is likely ornamental, not functional."); Hupp, 122 F.3d at 1460 (same). As a second step where the existence of alternative designs is not dispositive of whether the design as a whole is impermissibly functional, the Federal Circuit has noted that several other factors should be considered, including "[1] whether the protected design represents the best design; [2] whether alternative designs would adversely affect the utility of the specified article; [3] whether there are any concomitant utility patents; [4] whether the advertising touts particular features of the design as having specific utility; and [5] whether there are any elements in the design or an overall appearance clearly not dictated by function." Berry Sterling Corp. v. Pescor Plastics, Inc., 122 F.3d 1452, 1456 (Fed. Cir. 1997).

D. The Ordinary Observer

52. For purposes of assessing whether there is infringement of the '701 Patent by the Accused Products, I have been informed that the ordinary observer is deemed to be "the ordinary purchaser of the article charged to be an infringement." Goodyear Tire & Rubber Co. v. Hercules Tire & Rubber Co., 162 F.3d 1113, 1116 (Fed. Cir.1998). Even if I do not repeat it each

time, I have conducted all of my design patent infringement analysis and comparisons from the perspective of an ordinary observer.

53. Per the legal principles summarized above, particularly the ruling in Egyptian Goddess, it is my understanding that the hypothetical ordinary observer is assumed to be familiar with the prior art, and that the test must be applied through the eyes of one who gives the degree of attention to the purchase as would normally be given by someone making a purchase of the product at issue.

54. The "ordinary observer" test involves a two-tiered approach. The threshold question is whether, "without review of the prior art, the claimed and accused designs are sufficiently similar and, if so, the next level entailing a comparison to the prior art." Anderson v. Kimberly- Clark Corp., 570 F. App'x 927, 933-34 (Fed. Cir. 2014); Wing Shing Prods. (BVI) Co. Ltd. v. Sunbeam Prods., Inc., 665 F. Supp. 2d 357, 365 (S.D.N.Y. 2009) (two level infringement analysis involves "a level-one or 'threshold' analysis to determine if comparison to the prior art is even necessary, and a second level analysis that accounts for prior art in less obvious cases.").

55. The ordinary observer test similarly applies in cases where the patented design incorporates some functional elements. See Amini Innovation Corp. v. Anthony Cal., Inc., 439 F.3d 1365, 1372 (Fed. Cir. 2006) (holding that while it is proper to factor out the functional aspects of various design elements, that discounting of functional elements must not convert the overall infringement test to an element-by-element comparison). In evaluating infringement, courts determine whether "the deception that arises is a result of the similarities in the overall design, not of similarities in ornamental features in isolation." Id. at 1371.

56. I have been informed and understand that the ordinary observer is a person who is either a purchaser of, or sufficiently interested in, the item that displays the patented designs and who has the capability of making a reasonably discerning decision when observing the accused item's design whether the accused item is substantially the same as the item claimed in the design patent. See Arminak and Associates v. Saint-Gobain Calmar, 501 F.3d 1318, 1323 (Fed. Cir. 2017). The Supreme Court in Gorham described "ordinary observers" as people possessing "ordinary acuteness, bringing to the examination of the article upon which the design has been placed that degree of observation which men of ordinary intelligence give." Id. at 528. Assessment of design patent infringement must focus upon observations "by ordinary observers, by those who buy and use" the article bearing the design in question. Id.

57. In determining who the appropriate ordinary observer would be in this instance, I have considered the ultimate purchaser and end user of the Accused Products - DIYers and general contractors.

E. Legal Principles In Analysis Of Utility Patent Infringement

58. I have been instructed by counsel for OZCO regarding the relevant legal principles and have been asked to assume these principles as true in evaluating the possible infringement by Simpson of the '998 Patent.

59. I understand that patent infringement analyses are traditionally performed in a two-step process. First, the patent claims are construed to ascertain their scope. Second, the construed claims are compared to the accused products or processes to determine whether these products or processes fall within the scope of the claims.

60. I understand that the first step, claim construction, is a matter of law for the Court. It is my understanding that the scope and breadth of the claims are determined by first examining the language of the patent claims themselves, the specification, and the prosecution history. It is

also my understanding that claim terms are to be given their ordinary and accustomed meaning as understood by persons experienced in the field of the invention unless the inventor has clearly indicated that the term should be interpreted otherwise. I understand that both OZCO and Simpson engaged in extensive briefing on the issue of claim construction. In this report I will adopt the Court's constructions from the Claim Construction Order as I outline my opinions on the infringement of the accused Simpson products, although I note that generally, these opinions will hold true under either of the claim constructions.

61. I understand that the second step of infringement analysis is to compare a claim of the patent to an accused product. I also understand this comparison is carried out on an element-by-element basis so that each element described in a claim is compared against the accused product to determine if the product contains the described element. If an accused product contains each and every element of a claim of a patent, then the product literally infringes that claim. I also understand that a product may infringe a claim if it is reasonably capable of satisfying the claim elements, even if it may also be capable of non-infringing modes of operation.

62. I further understand that a patent may either be infringed directly or indirectly. Direct infringement of a patent occurs whenever someone without authority makes, uses, offers to sell, or sells any patented invention within the United States or imports into the United States any patented invention. Indirect infringement of a patent occurs whenever someone (1) actively induces infringement of a patent by knowingly encouraging or assisting infringement by others (i.e., inducement of infringement) or (2) offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing a patented process, constituting a

material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use (i.e., contributory infringement).

F. Claim Construction

63. I understand that the claims of a patent have the meaning that would be given to them by one of ordinary skill in the art at the time the invention was made. I also understand that the claim constructions given in the Court's March 26th, 2019, Claim Construction Order (Dkt 71) provided construction of the '998 Patent and not the '701 design patent. However, in interpreting the claims of the '998 Patent I have applied the claim constructions given by the Court in the Markman Order where applicable.

64. Below is a summary of the terms and phrases construed by the Court.

Disputed Claim Term/Phrase	**Court's Construction**
"hexagonal shape"	"shape with six sides"
"plurality"	"two or more"
"cap"	"a closed cover"
"disposed within"	"situated entirely within"
"cap," "screw," and "washer/nut member"	The "cap," "screw," and "washer/nut member" are separate elements
"washer/nut number"	The phrase "a washer/nut member comprising" is a preamble that is not limiting
"annular surface"	"a ring-shaped surface between two circles"

Disputed Claim Term/Phrase	Court's Construction
"disposed radially"	"extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member"
"flange portion"	"a projecting edge" The flange portion may but need not be combined with the washer/nut member
"screw"	Plain and ordinary member
"head portion"	Plain and ordinary member
"shaft portion"	Plain and ordinary member
"is configured to surround a shaft portion of a screw that contacts the annular surface"	"is configured to surround a shaft portion of a screw, which screw contacts the annular surface"

65. My analysis is based on the specific constructions adopted by the Court, and where the Court ruled that no further construction was necessary, I understand that I am to apply the ordinary and customary meaning to those claim terms and phrases as understood by a person of ordinary skill in the art at the time of the invention, in the context of the relevant patent-in-suit.

66. In defining a "person of ordinary skill in the art," I have been advised to consider factors such as the educational level and years of experience not only of the persons who have developed OZCO's Product that practices the claimed inventions of the '998 patent, but also of others working in the pertinent art; the types of problems encountered in the art; the teachings of the prior art; patents and publications of other persons or companies; and the sophistication of the technology. I understand that a person of ordinary skill in the art is not a specific, real individual, but rather a hypothetical individual having the qualities reflected by the factors

discussed above. I have assessed the level of ordinary skill in the art based upon my nearly 25 years working in product design and industrial design experience along with my experience, education, and training.

67. In order to determine who one of ordinary skill in the art is, I found it necessary to first define what that "art" is. It is my understanding that the art in question relates to designing industrial fasteners and fastener assemblies. In my opinion, based on the disclosure of the '998 patent and my experience, a person having ordinary skill in the art ("POSA") at the relevant time would have had at least a four-year degree in mechanical engineering, industrial design or other technical field of study, or equivalent experience, and at least two years' experience in industry studying, developing, or working with industrial hardware components or industrial machinery.

68. Based on my over 25 years of product design and industrial design experience, at the time of the inventions claimed in the '998 patent, I am a person of ordinary skill in the art.

III. THE ACCUSED PRODUCTS INFRINGE THE '701 PATENT

A. Examination Of The '701 Patent

69. US Design Patent 798,701 titled "Simulated Bolted Hardware" with a file date of October 3rd, 2017 is a continuation of an application filed on June 14th, 2013. The '701 Patent claims "The ornamental design for a simulated bolted hardware". The '701 Patent claims a single embodiment and includes five figures.

70. In the table below I provide the Figures from the '701 Patent. Following the ruling in Egyptian Goddess, I provide commentary with respect to certain ornamental features and the overall visual impression of the claimed design, but a detailed verbal analysis of the design would, per the court's concern, detract from the clarity of the images and potentially improperly influence their interpretation by the finder of fact in this case.

71. When examining the ’701 patent, it is only the claimed portion of the design which is examined. Disclaimed features – shown as dotted or “phantom” lines in the figures – are not considered.

Table 1
Analysis of US Patent D798,701

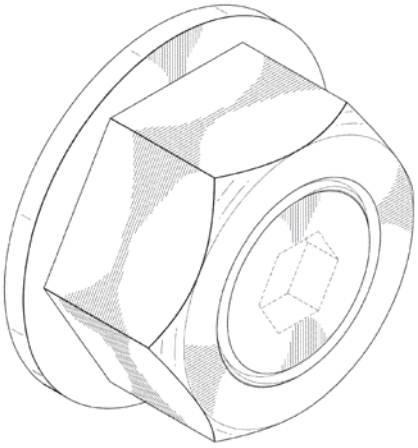
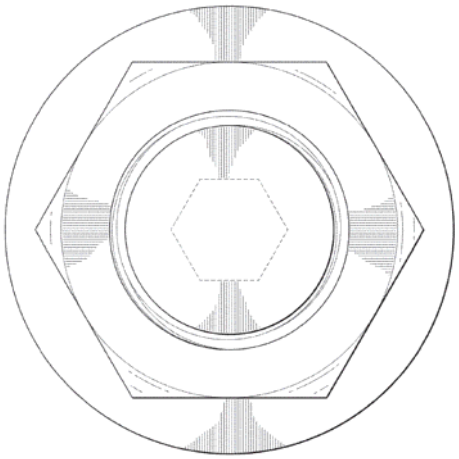
Description	Claimed Design	Comments
FIG. 1 is a perspective view of a simulated bolted hardware	 FIG. 1	Figure 1 shows a six-sided object with a projecting edge, together resembling a nut and washer. The upper surface of which is ring-shaped and has a circular groove giving the look of a separate circular cover in the middle. The circular cover is flush with the surrounding ring. There is an unclaimed area in the middle in the shape of a polygon.
FIG. 2 is a top plan view of the simulated bolted hardware	 FIG. 2	Figure 2 is a top view of the product. All of the same elements of figure 1 are visible here.

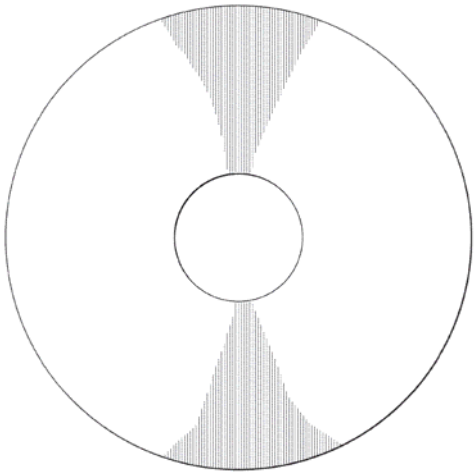
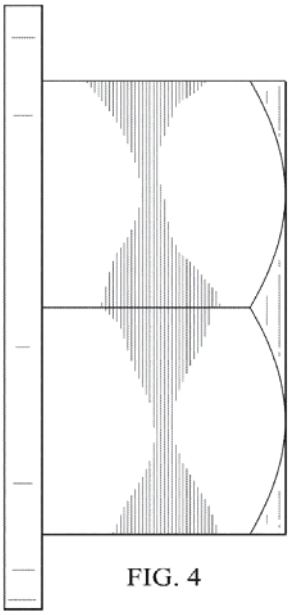
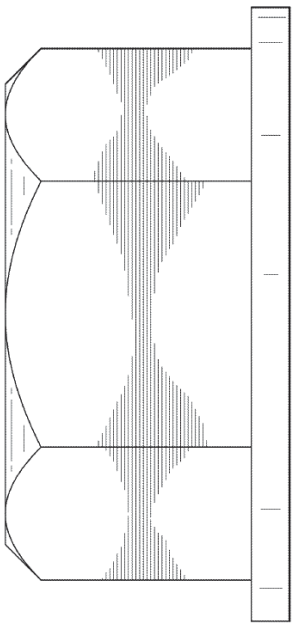
Table 1 Analysis of US Patent D798,701		
Description	**Claimed Design**	**Comments**
FIG. 3 is a bottom plan view of the simulated bolted hardware	 FIG. 3	Figure 3 is the view from below the product. Here we see an aperture that is considerably smaller than the circular groove -or circular cover on the top surface.
FIG. 4 a front elevation view of the simulated bolted hardware, the rear elevation view is a mirror image thereof	 FIG. 4	Figure 4 shows two angled surfaces of the "nut" and the arches at the top them, typical of a nut. The projecting edge (faux-washer) is also clearly visible here.

Table 1 Analysis of US Patent D798,701		
Description	**Claimed Design**	**Comments**
FIG. 5 is a right side elevation view of the simulated bolted hardware, the left side elevation view is a mirror image thereof.	 FIG. 5	Figure 5 shows three angled sides of the "nut" with arched tops, and the projecting edge.

B. The Accused Products And Place Of Purchase

72. The Accused Product is also a **simulated bolt** hardware, used to provide the **look and feel of a nut and washer** despite using a (proprietary) wood screw. It is an important attribute of the aesthetic that the head of the screw fills and covers the opening and sits flush when mounted, otherwise the attempted simulation is undermined. Evidently a corresponding Simpson screw was produced in a matching color for use with this washer/nut and sits flush when mounted into the workpiece.

73. As seen above, using a standard wood screw undermines the desired visual effect. It would be extremely unlikely to find a screw that would have the same diameter and thickness as the Accused product's proprietary screw and fit the nut/washer correctly for the desired visual effect.

74. In fact, in the Simpson's document "Response to Defendant's Second Set Of Interrogatories", they confirm this point: "When combined with the patent-pending, load-rated Outdoor Accents hex-head washer, the solution delivers the **decorative appearance of a bolt connection** but with a much easier installation" (emphasis added).[1]

75. Because the aesthetic result drives the primary reason of purchase, it is important for Simpson to present it to the potential purchaser as it would be used, assembled and mounted to hardware and/or in wood. Below are some examples of this from retail stores, trade shows, online and brochures that illustrate how Simpson presents the product to the potential purchaser.

[1] Simpson's Response to Interrogatory No. 6, January 29, 2019.

Table 2 Presentation of Product

Project brochure used for sales at Hardware Show 2019.

Frontmost display at Simpson booth, Hardware Show 2019.

Main display structure in Simpson booth at Hardware Show 2019.

At trade shows the Accused Product is also **displayed in an assembled manor** screwed into wood.[2]

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Simpson's online images also feature the bolt and screw 'in-situ' mounted into wood.

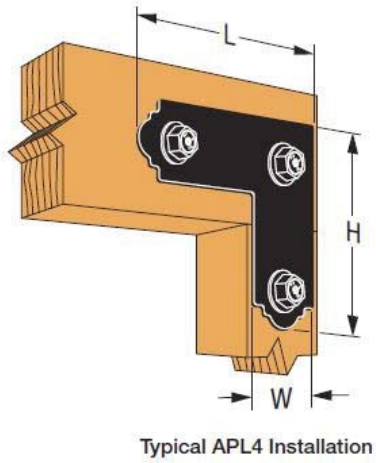
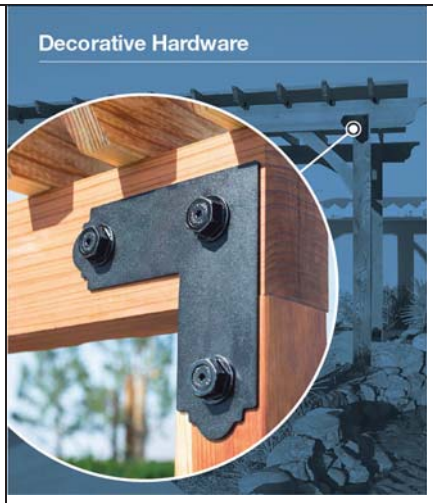
[2] Photos taken by Paul Hatch at The International Hardware Show, Las Vegas, NV, May 7, 2019.

[3] http://www.strongtie.com.au/products/connectors/outdooraccents.html?source=topnav#deckjoistties

[4] https://www.strongtie.com/products/go/connectors/outdooraccents

[5] *Id.*

Table 2 Presentation of Product

		
2019 Simpson Catalog[6]	Simpson 2017-18 Catalog	 2017-18 Simpson Catalog
Simpson's Catalogs also portray color photos of the screw and bolt assembled into wood.		

76. There Is Evidential Confusion At Place Of Purchase. In places of purchase that offer both Simpson and OZCO, the customer is easily mislead to believe one product is the other.[7] At home stores like Home Depot, the hardware is on display mounted into a gazebo or a section of framework to show it in context. The items themselves are sold in their packaging, separately on a shelf.[8] After viewing the display, the purchaser will then turn to the shelf and may choose the wrong product because of being aesthetically substantially the same.

[6] Bob Bouchet Deposition, Exhibit 14, p. 314.

[7] Thom Murphy Deposition, 174:15-175:17, 188:1-190:16, 196:8-197:18, 242:25-244:17, 257:23-259:13

[8] Jason Liebreich Deposition, 91:1-94:14, Exhibit 377.

77. While not dispositive of the issue of customer confusion, these kinds of observations, by actual ordinary observers, do indicate that my analysis in this report is in line with real- world consumer experience.

C. Comparison Of The '701 Patent Figures To The Accused Products

78. The first step in my analysis of whether there is infringement is a comparison of each drawing figure of the '701 Patent to the corresponding view of the Accused Products, so that side-by-side visual comparisons can be made. In making this comparison, it is only the claimed portion of the design which is compared.

Table 3
Comparison of Patent Figures to the Accused Products

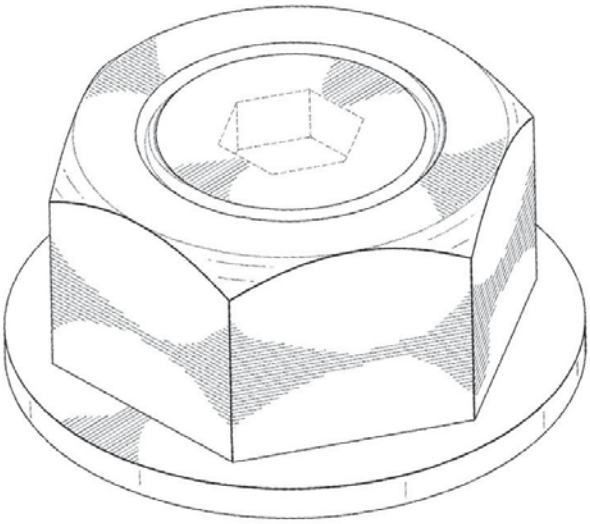
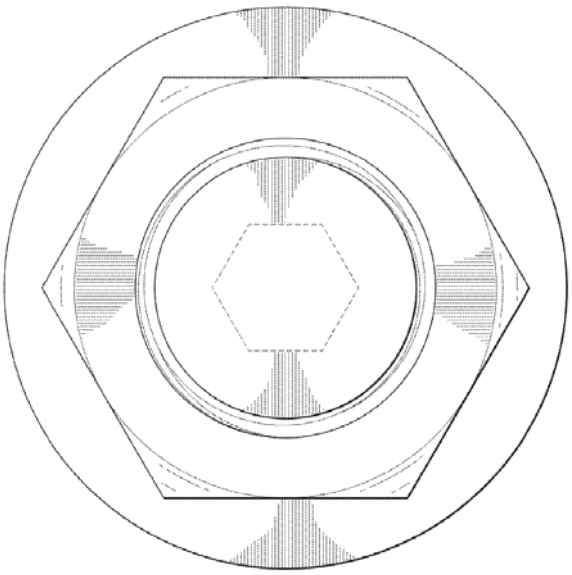
Patent Figure	Accused Product
	
In this comparison of views, the visual impression of the Accused Product is more than substantially similar to '701 Patent. They share the look of a nut combined with washer. Each of the six sides are flat at the bottom and feature an arch at the top. They share the same outer ring on the top surface inside which a groove defines a flush, circular area in the middle.	

Table 3
Comparison of Patent Figures to the Accused Products

Patent Figure	Accused Product
	

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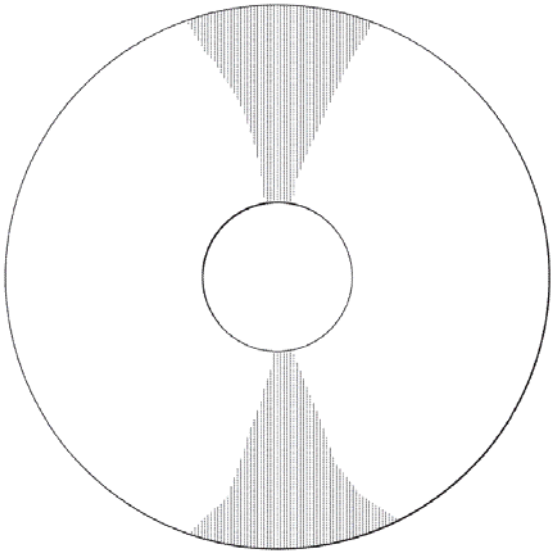
	

In this comparison of views, the overall visual impression of the Accused Product is more than substantially similar to '701 Patent.

They both present a large, flat circle without decoration, with a relatively small circular feature in the center. The feature is much smaller than the circular surface on the top seen in Figs 1 and 2.

Table 3
Comparison of Patent Figures to the Accused Products

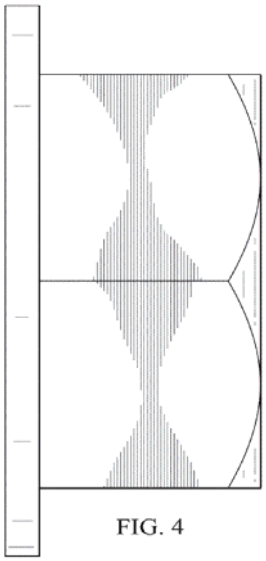
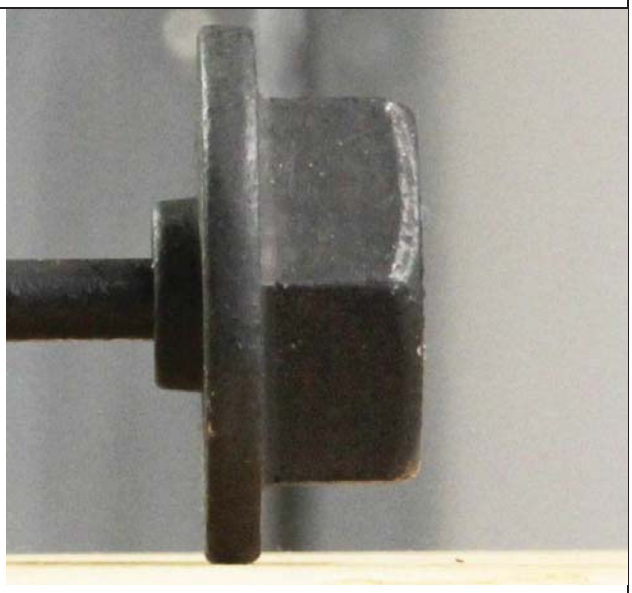
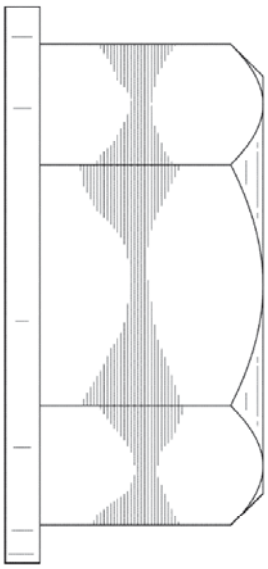
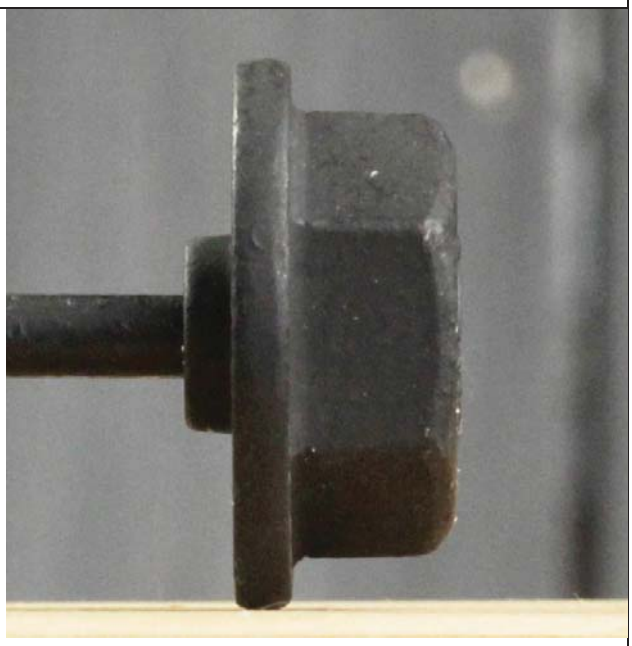
Patent Figure	Accused Product
 FIG. 4	
In this comparison of views, the overall visual impression of the Accused Product is more than substantially similar to '701 Patent. They both present the same angled side surfaces with arched tops. They both feature a projecting edge or 'faux-washer' at the base of the sides. In this view we see a small protrusion to the left of the projecting edge of the Accused Product. But this is not a visually significant feature in design, and this trivial difference is not relevant to whether the two designs are substantially similar.	

Table 3
Comparison of Patent Figures to the Accused Products

Patent Figure	Accused Product
	
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79. In my comparison of the '701 Patent to the Accused Products, I am reminded that the scope of the claim of a patented design "encompasses 'its visual appearance as a whole,' and in particular 'the visual impression it creates.'" Contessa, 282 F.3d at 1376, and that infringement analysis requires a determination of whether the patented design as a whole is substantially similar in appearance to the accused design, and that the patented and accused

designs do not have to be identical for design patent infringement to be found. Braun, 975 F.2d at 815, 820.

80. Indeed, when comparing a patented design with the accused infringing product, even if various ornamental elements which make up the whole of a design may be slightly different in isolation, infringement occurs so long as the overall visual impression is substantially similar Victor Stanley, 269 F.R.D. 497. "(T)he mandated overall comparison is a comparison taking into account significant differences between the two designs, not minor or trivial differences that necessarily exist between any two designs that are not exact copies of one another." Int'l Seaway, 589 F.3d at 1233, 1243.

81. Giving due consideration to the above legal principles, the examination illustrated in the table above allows for no other conclusion than that all of the design features of the '701 patent are also found in the Accused Products. To the extent that minor differences may be found between the '701 Patent and the Accused Products, these small visual differences are entirely inconsequential, and do not impact the overall visual impression presented by the Accused Products. As has been illustrated by the above side-by-side visual comparisons, the Accused Products have appropriated the '701 Patent's design.

82. My understanding of the test set forth in Gorham is clear: "[I]f, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other." Gorham, 81 U.S. at 511, 528. It is my opinion that:

a. The Accused Products are substantially the same in its visual appearance as the design claimed by the '701 Patent, and would appear substantially the same to an ordinary observer familiar with the prior art.

b. This substantial similarity is more than sufficient to cause an ordinary observer to confuse the Accused Products for the patented design, and to purchase the Accused Products believing it to be the patented design.

83. While it is not possible or intended to draw dimensions from a patent drawing, it is clear to the ordinary observer that these both share the same proportions.

84. It would be clear to the ordinary observer that the '701 design as a whole is more than substantially similar in appearance to the Accused Products. As such, the Accused Products infringe the '701 patent.

D. Analysis Of The Prior Art

85. In the Simpson's Invalidity Contentions or 11/5/2018, it cites approximately 70 different prior art product references and approximately 14 prior art patents, which I will collectively refer to as the "Referenced Prior Art."[9] I understand the references not published before or with an effective filing date before June 15th 2012 are not prior art. I have not independently determined whether any of the "Referenced Prior Art" is, in fact, prior art to the '701 patent.

86. I have reviewed the Reference Prior Art, and it is my opinion that the '701 Patent is significantly distinct from any of the Referenced Prior Art, and would be seen as substantially different by an ordinary observer familiar with the prior art.

87. The Referenced Prior Art falls into four main categories of product; Flange Nuts, Hex-washer head screws, blind set screws and driver studs. The exact names of the items varies but they visually fall under these four archetypes as shown in the table below. For clarity, I will use those four terms when referencing the corresponding Reference Prior Art.

[9] Simpson's Invalidity Contentions, November 5, 2018.

 Item 1	 Item 63	 Item 7	 Item 13
Flange Nut	**Hex-washer Head Screw**	**Blind Set Screw**	**Driver Stud**
Items 1-6, 22, 25-29, 32-56[10]	Items 57-70[11]	Items 7-12, 19, 20, 21, 23, 24[12]	13-18[13]

Note that Items 30 and 31 are listed by the Simpson as a singular item but are in fact a three part assemblies, assembled by the user.

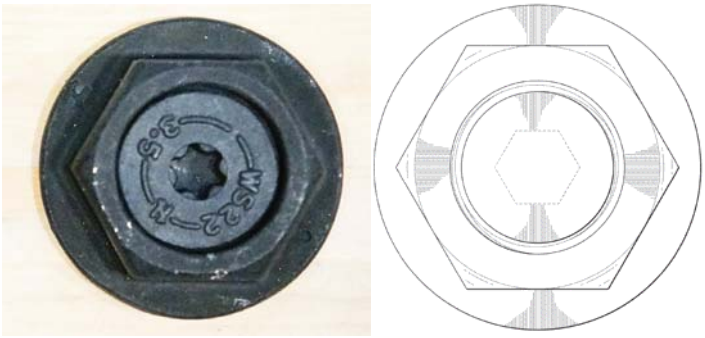
88. In order to illustrate in further detail the lack of visual similarity between the '701 Patent and the Referenced Prior Art, as well as to provide a partial overview of the broad landscape of patented designs for such decorative fixtures at the time of filing the Patents at Issue, I have compiled representative figures from the Referenced Prior Art into tables grouped under their archetypes.

[10] *Id.*
[11] *Id.*
[12] *Id.*
[13] *Id.*

Flange Nuts

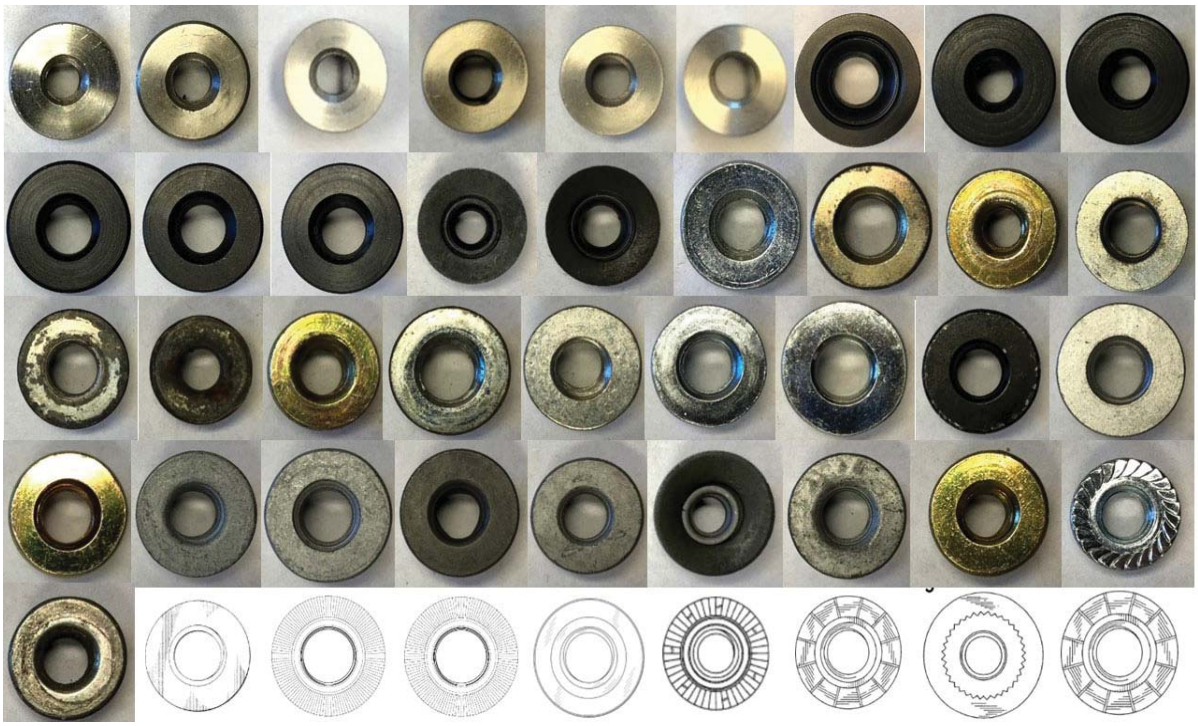
Table 3: Flange Nuts

Top View of Flange Nuts in Referenced Prior Art



The Accused Product and the ’701 Patent both represent closed forms, without the large through-hole the Flange Nuts inherently embody.

Table 3: Flange Nuts



Underside View of Flange Nuts in Referenced Prior Art

The view of the underside of the Flange Nuts also underlines the same visual differentiation to the Accused Product and the '701 Patent; all the Flange Nuts have a large, threaded through-hole at the same diameter from top to bottom.

89. A Flange Nut is a nut integrated to a flange which acts as a washer would. The flange spreads the pressure of the nut over a larger surface area, reducing surface damage to the part it is fastening and reducing the risk of it loosening. The flange nut is used in combination with a bolt, which passes through the workpiece while the flange nut applies pressure to the surface.

Bolt and Flange Nut

Flange Nut in assembled state.

90. The flange nut has a single-diameter thread from top to bottom through which the bolt passes. When assembled, the bolt protrudes above the top surface. If the threaded end of the bolt is flush or sub-flush to the top of the Flange Nut, the assembly is at risk of slipping and failing, therefore the correct usage of a bolt and flange is with the thread of the bolt exposed above the top of the Flange Nut.

91. Wood has dimensional hardness and moisture content variations that affect its size and resistance to compression. Therefore, there is no way to assure that the end of a threaded bolt or rod will be flush with the top surface of the flange nut when used in a fastening application. In fact, if the threaded bolt is flush or sub-flush after tightening, that is an indication that it may fail under further load and a longer threaded bolt is needed.

92. In the case of the ’701 Patent and the infringing Accused Products, the main visual requirement is that these products have the appearance of a large bolt head and not of the small wood screw thread they incorporate. A flange nut and bolt connection have some visual similarities and significant differences to the OZCO product and Accused Products but they are not similar in function.

93. Flange Nuts are generally not considered decorative and would not be described as “simulated bolted hardware”.

94. As can be seen in Table 3 above, the Referenced Prior Art flange nuts have many commonalities such as the hex-shaped head, the ring shaped upper surface and the circular flange. This is still just a small portion of the many Flange Nuts on the market, therefore the plethora of those common visual traits would heighten the attention to visually distinct details.

95. In the image it is clear that the Accused Products and the ’701 Patent visually differentiate themselves from the rest in the same ways:

a. The Referenced Prior Art Flange Nuts all have large through-holes in the center.

b. The Accused Products and ’701 Patent they have an aperture on the underside that is considerably smaller than the corresponding details on the upper side.

Table 4: Flange Nuts Compared To Accused Product and '701 Patent.

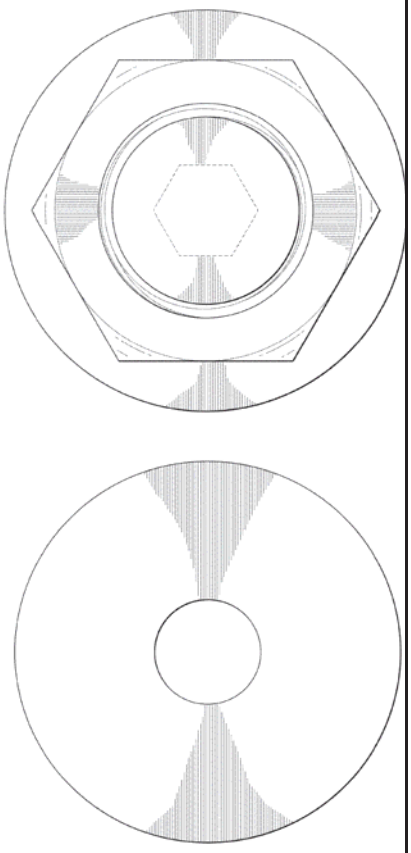
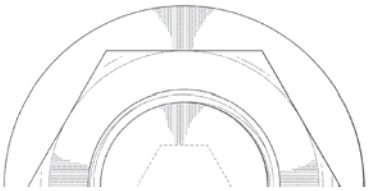
		
Flange Nut top and underside	Accused Product top and underside	'701 Patent top and underside

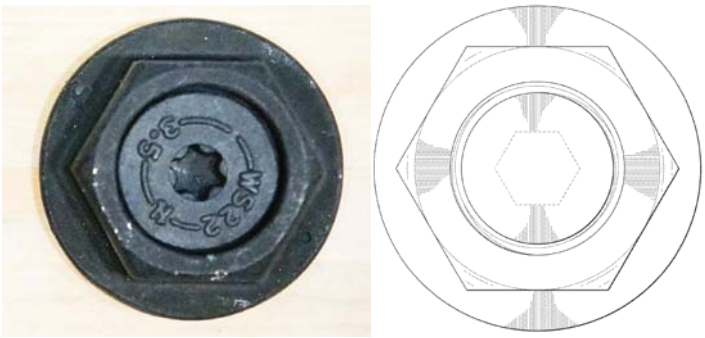
Table 5: Apertures on Top and Bottom

 	 	 
Referenced Prior Art, Item 1	Accused Products	'701 Patent
Each shows half of the top view aligned with half of the bottom view, to illustrate how apparent the difference between apertures are on the Accused product and '701, where the aperture on the underside is much smaller than the corresponding details on the front.		

Hex Head Washers

Table 6: Hex-Washer Head Screws

Hex Washer Head Screws in Referenced Prior Art



Both the Accused Products and the '701 Patent have flush upper surfaces with a circular groove conveying a separate part which includes a multi-sided cavity. The Reference Prior Art Hex Washer Head Screws do not have this combination of visual attributes.

96. Hex-washer head screws of the type in the Referenced Prior Art have coarse threads and are also called Hex Washer Lag Screw. They are used to fasten wood to wood and metal to wood, or "lag" materials together. The hex head allows for more torque to be applied when fastening, the flange spreads the pressure applied to the workpiece to reduce slippage. Unlike the Flange Nuts they do not need an additional bolt to be able to be applied to the workpiece.

97. Hex Washer Head Screws are generally not considered decorative and would not be described as "simulated bolted hardware".

98. As can be seen in Table 6, the selected Reference Prior Art Hex Washer Head Screws have many commonalities with each other, including the hex shaped head, the circular shaped upper surface and the circular flange. This is still just a small portion of the many Hex-Washer Head Screws on the market, so because of the plethora of those common visual traits there would be heightened attention to visually distinct details.

99. In the image it is clear that the Accused Products and the '701 Patent visually differentiate themselves from the Hex Washer Head Screws in very visible ways; the Reference Prior Art Screws do not have a circular groove conveying a separate part within the head with a multi-sided cavity. The collection of prior art has a recognizable uniform look and therefore visual details that differentiate from this are instantly noticeable and therefore distinguish the Accused Products and '701 Patent from the Referenced Prior Art.

Set Screws and Driver Studs

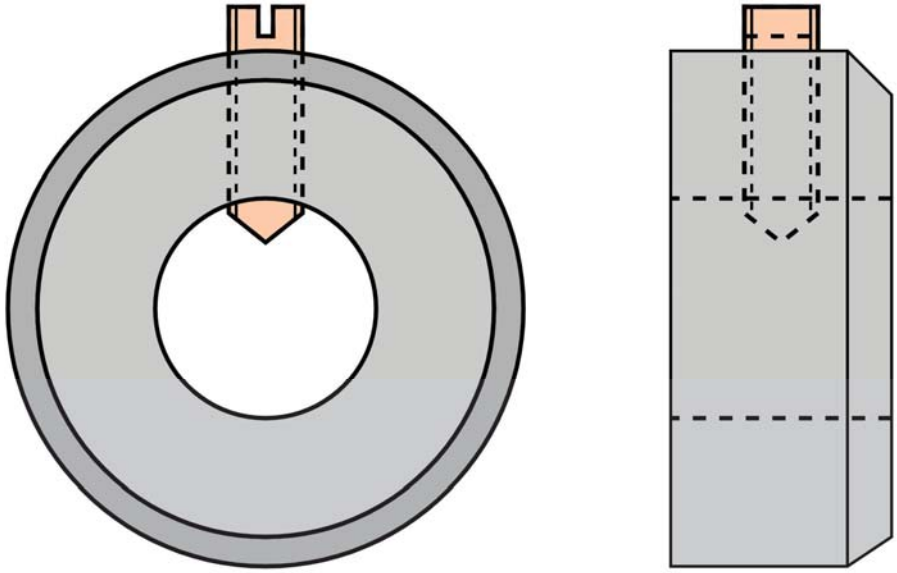
Table 7: Set Screws and Driver Studs

Note: These are the online catalog images for the Part numbers provided by Simpson. Some part numbers used the exact same images, which have been reviewed but omitted here.

100. Set screws are usually headless (often called blind), meaning that the screw is fully threaded and has no head projecting past the major diameter of its screw thread. A set screw is a type of screw generally used to secure an object within or against another object and not to fasten two objects together like screws or bolts do. A common example of use for a set screw is securing a pulley or gear to a shaft. They are almost always used to apply pressure to a metal object to prevent it from moving or sliding laterally to the set screw.

101. There are many reasons they would not be considered for use in a flange nut. For example, set screws are generally not used in the construction of woodwork frames and are generally not known to the DIYer with knowledge of wood framing. For example, set screws are not used to fasten materials together, but are used to apply pressure at their tip to a metal part to prevent lateral movement.

Figure 1: Typical application of blind set screws.



Set screws apply force at 90 degrees to the object it secures. In the example above the set screw highlighted in orange would apply force at its tip to a metal shaft that passes through the aperture.

102. Driver Studs are also headless, and are typically longer than set screws. They usually have two sets of thread separated by a threadless shank. They are typically used to draw two threaded metal parts closer together, and are not typically attached directly to wood. They are commonly used by machinists for clamping applications to secure workpieces, such as on a lathe.

103. There are many reasons driver studs of the type shown in the Referenced Prior Art would not be considered for use in a flange nut. For example, driver studs are generally not used in the construction of woodwork frames and are generally not known to the DIYer with knowledge of wood framing. For example, driver studs of the type shown do not have screw threads suitable for woodwork but are tighter, for use in threaded metal.

104. It is Simpson's burden as the accused infringer to select the *closest* prior art. Should the Simpson identify the closest prior art, I reserve the right to conduct an analysis to compare the closest prior art reference to the '701 Patent and present my findings.

E. Examination Of The Commercial Embodiments Of The '701 Patent

105. In the tables below, I offer a visual comparison of the design claimed in the '701 Patent with the design of the OZCO commercial embodiments, in order to determine whether there is any significant difference between the patented designs and the commercial embodiments. I also examined the physical embodiments in reaching my conclusions.

Table 8: Comparison Of The '701 Patent With OZCO's Commercial Embodiments

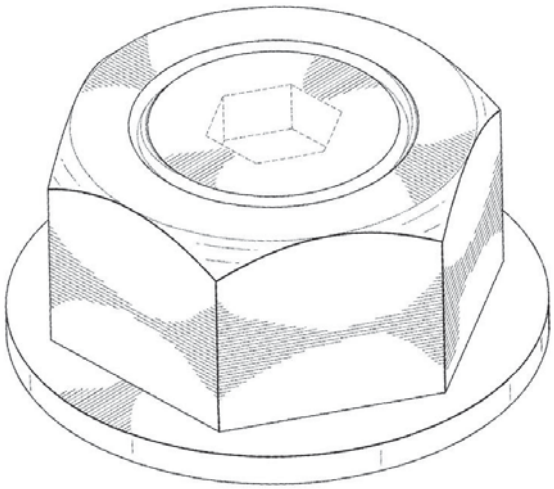
Patent Figure	OZCO Product
	

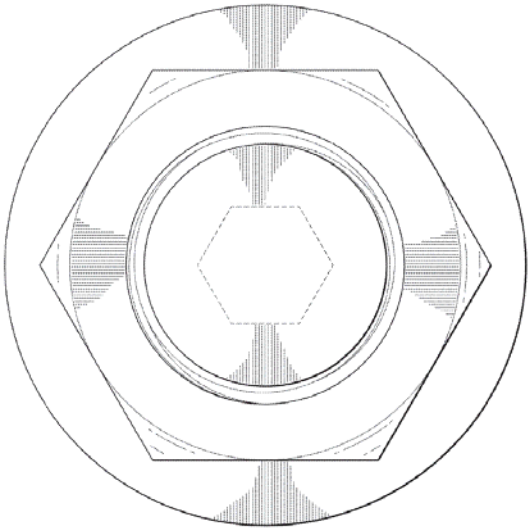
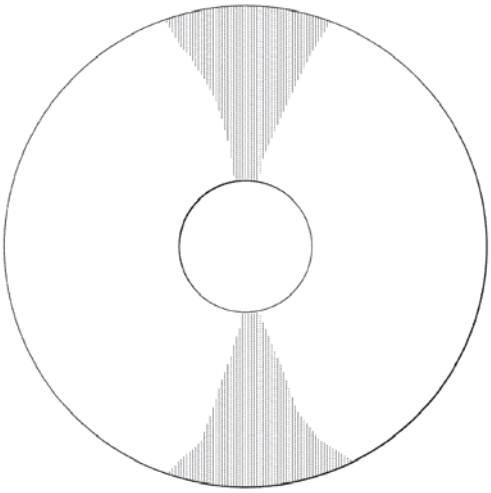
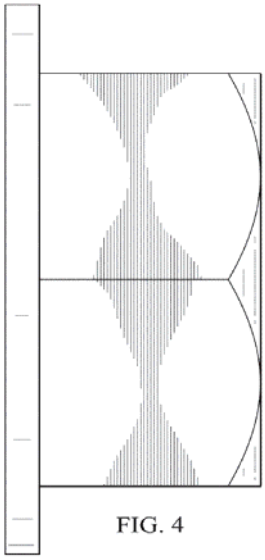
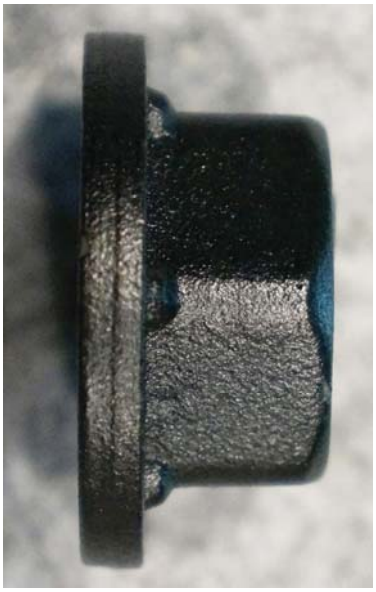
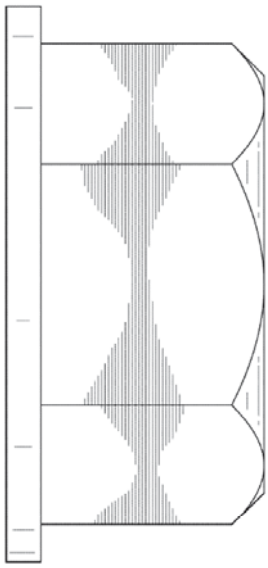
Table 8: Comparison Of The '701 Patent With OZCO's Commercial Embodiments	
Patent Figure	**OZCO Product**
	
	

Table 8: Comparison Of The '701 Patent With OZCO's Commercial Embodiments

Patent Figure	OZCO Product
 FIG. 4	
	

106. Having performed the above comparison, it is my opinion that there are no significant differences between the designs claimed by the '701 Patent and the OZCO

Commercial Embodiments, and that the OZCO Commercial Embodiments closely practice the claims of the '701 Patent.

107. I should be noted that the OZCO product has small half-spheres at the bottom corner of the sides, which look like small spot weld marks. But these are not significant or important differences in design and are while they are noticeable, they do not change the overall impression of the object as a whole.

F. Comparison Of The Commercial Embodiments To The Accused Products

108. Having determined that the Commercial Embodiments closely follow the claims of the '701 Patent, I will now offer a comparison of the Commercial Embodiments to the Accused Products. I have been informed that it can be helpful in an infringement analysis to compare the claimed design with the patent's commercial embodiment, so long as there are no significant differences between the claimed design and its commercial embodiment, which is true here as demonstrated by the analysis above showing that OZCO's Commercial Embodiments practice the '701 Patent. See Lee v. Dayton-Hudson Corp., 838 F.2d 1186, 1189 (Fed. Cir. 1988) ("When no significant distinction in design has been shown between the patent drawing and its physical embodiment, it is not error for the court to view them both, and to compare the embodiment of the patented design with the accused devices.") See also, L.A. Gear, Inc. v. Thom McAn Shoe Co., 988 F.2d 1117, 1125-6 (Fed. Cir. 1993) ("When the patented design and the design of the article sold by the patentee are substantially the same, it is not error to compare the patentee's and the accused articles directly… indeed, such comparison may facilitate application of the Gorham criterion of whether an ordinary purchaser would be deceived into thinking that one were the other.").

109. While not a part of formal infringement analysis per se, the ordinary observer does not compare patent drawings to products when shopping for decorative hardware such as

the Accused Products. With that in mind, this comparison is intended to determine, with respect to the actual physical products available for purchase, whether "if, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other."

110. For purposes of illustrating this analysis, I have selected views that is not only most representative of the designs, but also in the way it is presented at place of purchase, and thus a primary reference for the vantage from which an ordinary observer would perceive the OZCO Commercial Embodiments and the Accused Products offered by Simpson.

Accused Products (left) and OZCO's Commercial Embodiment (right)

OZCO's Commercial Embodiment (left) and Accused Products (right)

Accused Products (left) and OZCO's Commercial Embodiment (right)

111. It is also worth noting that the dimensions of the Hex-Head Washer correlate to those of the OZCO original product. There is no functional or aesthetic reason why the Simpson Hex-Head Washer should use the same dimensions as the OZCO original. In my opinion, I find no reason why consumer interest would be adversely affected if it were slightly larger or smaller in any of these dimensions.

Table 9: Comparison of Dimensions

	Simpson's Hex-Head Washer	OZCO Original Product
width across flats on nut	26	26
diameter of cavity in top	20	20
diameter of 'washer'	38	38
height of 'washer'	4	4

(Dimensions have been rounded to within a millimeter.)

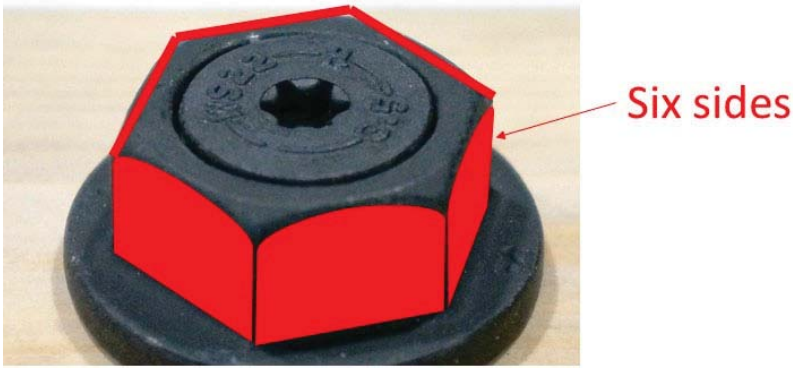
112. The dimensions of the Simpson product match so exactly to OZCO's original that the Simpson screw fits perfectly into the cavity of the OZCO product (shown right).

IV. THE ACCUSED PRODUCTS INFRINGE THE '998 PATENT

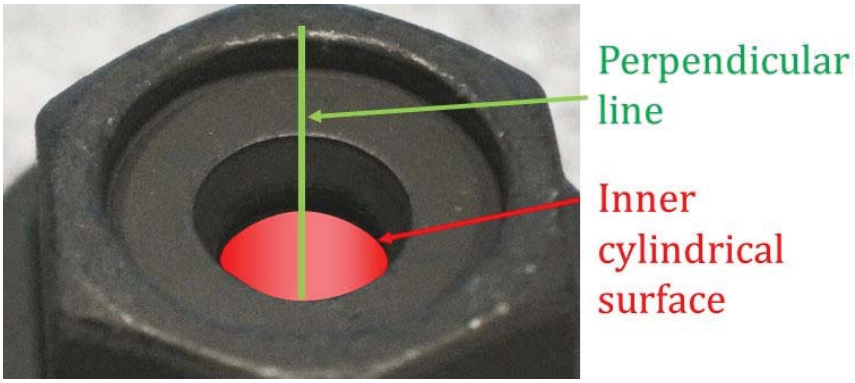
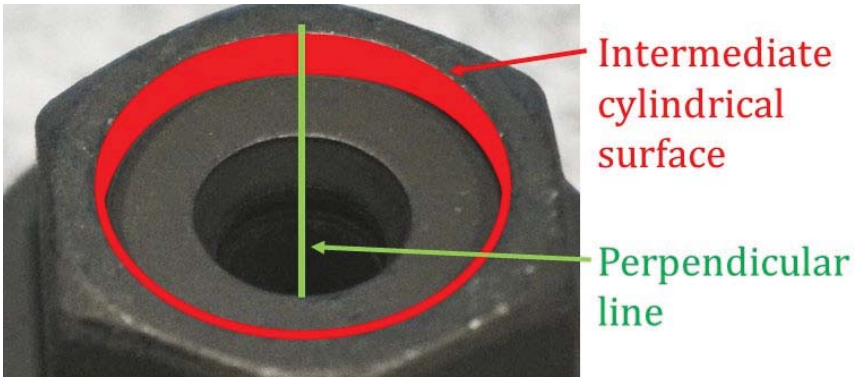
A. Claim Construction And Claim Chart

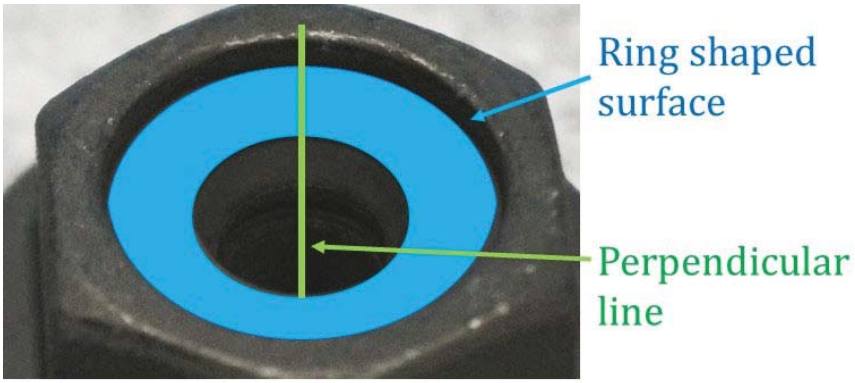
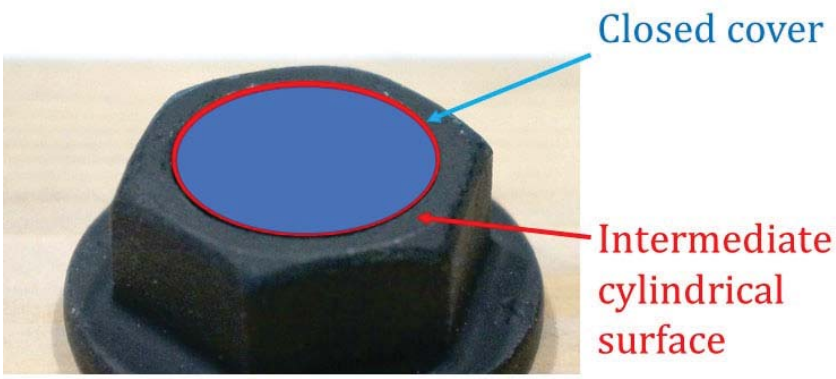
113. I understand that the claims of a patent have the meaning that would be given to them by one of ordinary skill in the art at the time the invention was made. I also understand that the claim constructions given in the Court's March 26th, 2019, Claim Construction Order (Dkt 71) provided construction of the utility patent, the '998 Patent. I relied upon the Court's claim constructions in my infringement analysis, and, using those constructions, have compared the claim elements to the Accused Products.

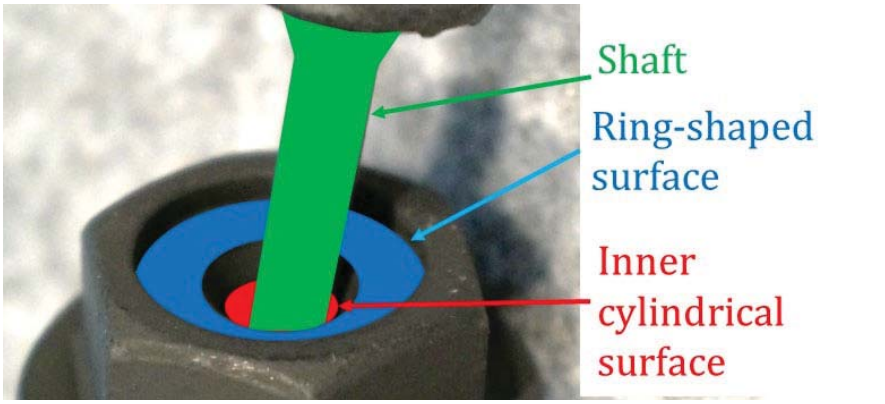
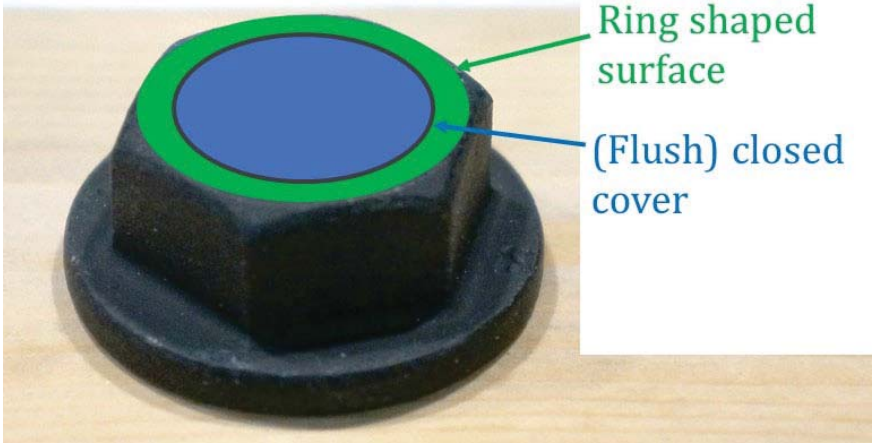
114. The table below compares the '998 Patent claims directly to Simpson's Accused Product. In order to flag certain visual elements that I would like to bring to the attention of the reader, I have applied computer generated highlights to selected images below. The application of color or outlines has in no way altered or modified the underlying drawing or photograph, and each image continues to provide a complete and accurate indication of the design elements found in and embodied by these products. The same analysis could be presented with non-highlighted versions of the photos shown below.

Table 10 : Patent Infringement Claim Chart	
An apparatus comprising: a washer/nut member comprising; *apparatus is defined as "a mechanical device or set of devices esp for a particular purpose…"*[14] *The Court construed the phrase "a washer/nut member comprising" to be a preamble that is not limiting.* (Dkt. 71 at 15.)	 The Accused Product comprises of an integrated assembly. It has a washer/nut.
a plurality of outer surfaces disposed in a hexagonal shape; *plurality is construed as "**two or more**"* (*Id.*) *hexagonal shape is construed as "**shape with six sides**"* (*Id.*)	 The Accused Product product has six sides.

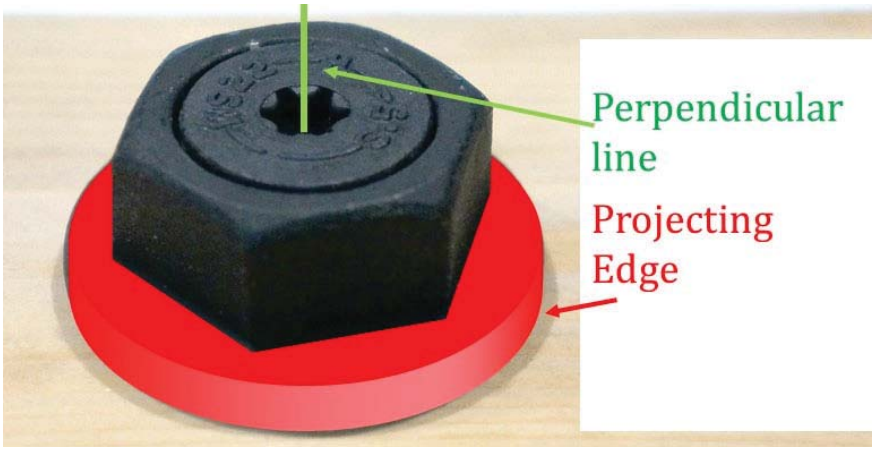
[14] American Heritage Desk Dictionary, Fifth Edition

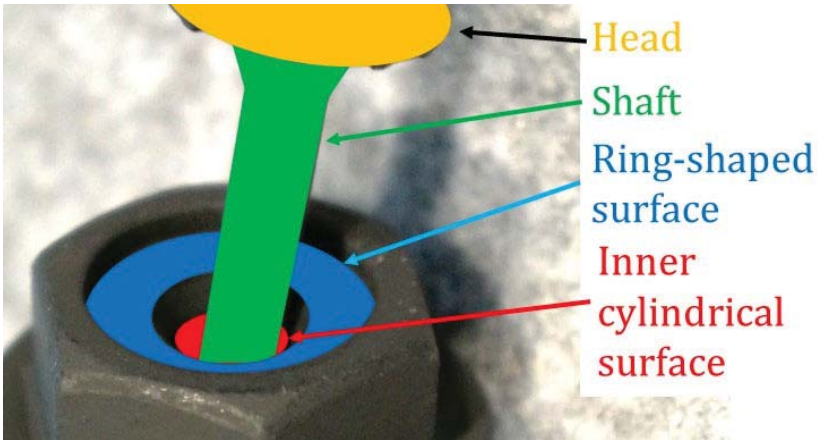
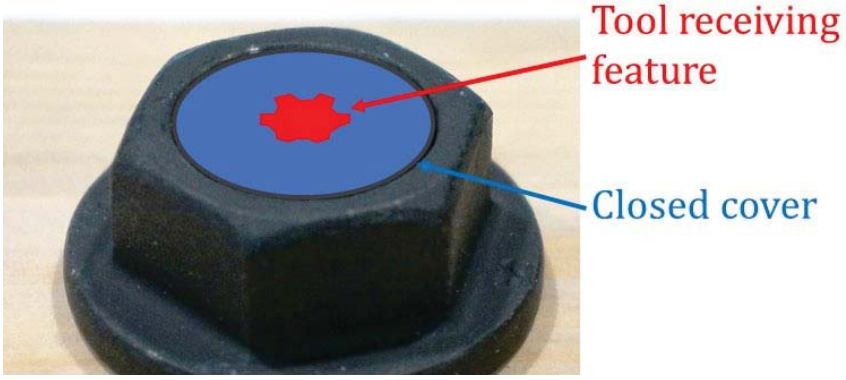
an inner cylindrical surface disposed radially internal to the plurality of outer surfaces *disposed radially* *is construed as "**extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member.**"* (*Id.*)	 The Accused Product has an inner cylindrical surface extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member.
an intermediate cylindrical surface disposed radially between the plurality of outer surfaces and the inner cylindrical surface; and *disposed radially* *is construed as "**extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member**"* (*Id.*)	 The Accused Product has an intermediate cylindrical surface extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member.

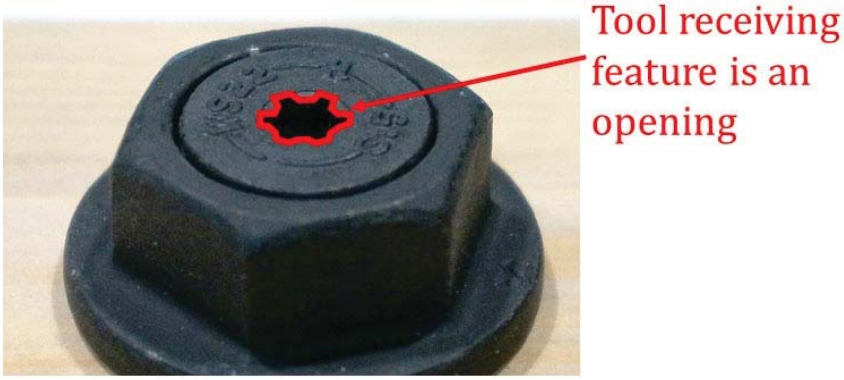
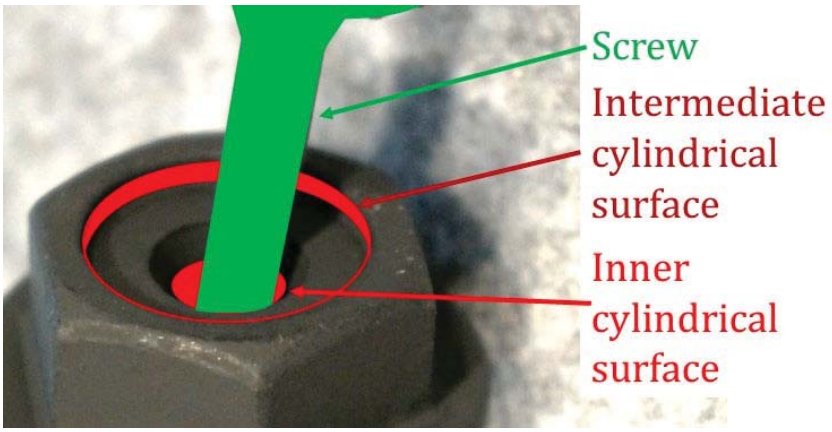
an annular surface disposed radially between the inner cylindrical surface and the intermediate cylindrical surface and *annular surface* is construed as "***a ring-shaped surface between two circles***" (*Id.*) *disposed radially* is construed as "***extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member***"	 The Accused Product has a ring-shaped surface between two circles, extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member.
a cap disposed within the intermediate cylindrical surface *cap* is construed as a "***closed cover***" (*Id.*) *disposed within* is construed as "***situated entirely within***" (*Id.*)	 The Accused Product has a closed cover situated entirely within the intermediate cylindrical surface

wherein the inner cylindrical surface is configured to surround a shaft portion of a screw that contacts the annular surface ***shaft portion*** *is construed as having a "plain and ordinary meaning"* (*Id.*) ***screw*** *is construed as having a "plain and ordinary meaning"* (*Id.*) *annular surface is construed as a "**ring-shaped surface between two circles**"* (*Id.*)	 The Accused Product has an inner cylindrical surface configured to surround a shaft portion of a screw that contacts the ring-shaped surface between two circles.
and wherein the washer/nut member further comprises an upper annular surface and a flat surface of the cap is substantially flush with the upper annular surface. *annular surface is construed as "**a ring-shaped surface between two circles**"* (*Id.*) ***flush*** *is defined as "having surfaces in the same plane"* [15]	 The Accused Product has a washer/nut member further comprising an upper ring-shaped surface between two circles and a flat surface of the closed cover is substantially flush with the upper ring-shaped surface.

[15] American Heritage Desk Dictionary, Fifth Edition

Claim 2: The apparatus of claim 1 wherein the washer/nut member further comprises a flange portion disposed radially external to the plurality of outer surfaces. *flange portion* is construed as "***a projecting edge***" (Dkt. 71 at 15.) *flange portion is also construed that it "may but need not be combined with the washer/nut member."* (*Id.*) *disposed radially* is construed as "***extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member***" (*Id.*)	 The Accused Product has a washer/nut member further comprising of a projecting edge extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member, external to the plurality of outer surfaces.

Claim 3: The apparatus of claim 1 further comprising the screw wherein the shaft portion of the screw is surrounded by the inner cylindrical surface and a head portion of the screw contacts the annular surface ***screw*** *is construed as having a "plain and ordinary meaning" (Id.)* ***head portion*** *is construed as having a "plain and ordinary meaning" (Id.)* ***shaft portion*** *is construed as having a "plain and ordinary meaning" (Id.)* *annular surface is construed as "**a ring-shaped surface between two circles**" (Id.)*	 The Accused Product also comprises the screw wherein the shaft portion of the screw is surrounded by the inner cylindrical surface and a head portion of the screw contacts the ring-shaped surface between two circles.
Claim 4: The apparatus of claim 1 wherein the cap includes a tool receiving feature. *cap is construed as "**a closed cover**" (Id.)*	 The Accused Product has a closed cover which includes a tool receiving feature.

Claim 5: The apparatus of claim 4 wherein the tool receiving feature is an opening.	 The Accused Product has a tool receiving feature that is an opening.
Claim 7: The apparatus of claim 5 further comprising the screw received through the inner cylindrical surface and the intermediate cylindrical surface ***screw*** *is construed to have its "plain and ordinary meaning" (Id.)*	 The Accused Product further comprises of a screw received through the inner cylindrical surface and the intermediate cylindrical surface.

115. In my opinion, the combination of the Simpson Hex-head Washer and Simpson Structural Wood Screw Accused Product, when used together as intended, infringe claim 1 of the '998 Patent.

116. Furthermore, in my opinion, the Accused Products contain all the claim limitations in claims 2-5 and 7 which depend upon claim 1, therefore the Accused Products likewise infringe claims 2-5 and 7 of the '998 Patent.

B. Induced Infringement:

117. I understand that the Hex-Head Washer and the Structural Wood Screw products are sold in separate packaging as shown in Table 11. Separately, neither the Hex-Head Washer nor the Structural Wood Screw infringe claims 1-5 and 7 of the '998 Patent. In my opinion, when the user combines the Hex-Head Washer with the Structural Wood Screw to form the "Outdoor Accents" system, the combination directly infringes claims 1-5 and 7 of the '998 patent, as set out in Table 10.

118. As illustrated in Table 11, in the instructions, Simpson instructs and induces the user to combine the Hex-Head Washer and the Structural Wood Screw in use in a manner that infringes claims 1-5 and 7 of the '998 Patent. Specifically, the Structural Wood Screws packaging states that the "Hex-Head Washer is sold separately" and its packaging graphics show the two components being combined in use.[16] Likewise, the Hex-Head Washer packaging states that "Structural Wood Screw is sold separately," and its packaging graphics show the two components being combined in use.[17]

[16] Jason Liebreich Deposition, 76:6-78:14, Exhibits 374, 375; Bob Bouchet Deposition, 20:16-25 Exhibit 9.

[17] *Id.*

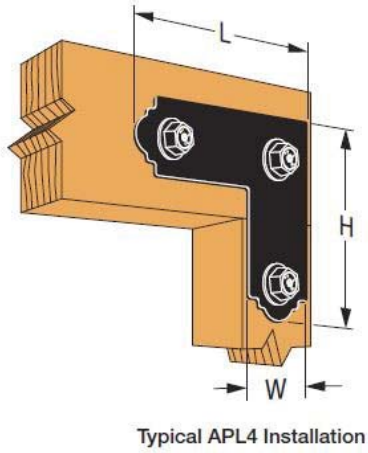
Table 11 : Simpson Instructs The User To Combine

a) The Structural Wood Screws packaging states that the "Hex-head Washer is sold separately" and the packaging graphics shows the two components being combined in use.

b) The Hex-head Washer packaging states that "Structural Wood Screw is sold separately" and the packaging graphics show the two components being combined in use.

c) The Outdoor Accents portion of the 2019 Simpson catalog, other sales literature and the fastener code certification of these products show them used, tested and sold together as a system.[18]

d) Simpson also clearly specifies the exclusive use of one with the other: The 2019 Simpson Catalog states clearly to use the Hex-head Washer when using the SDWSDBB wood screw.[19]



Typical APL4 Installation

Installation:

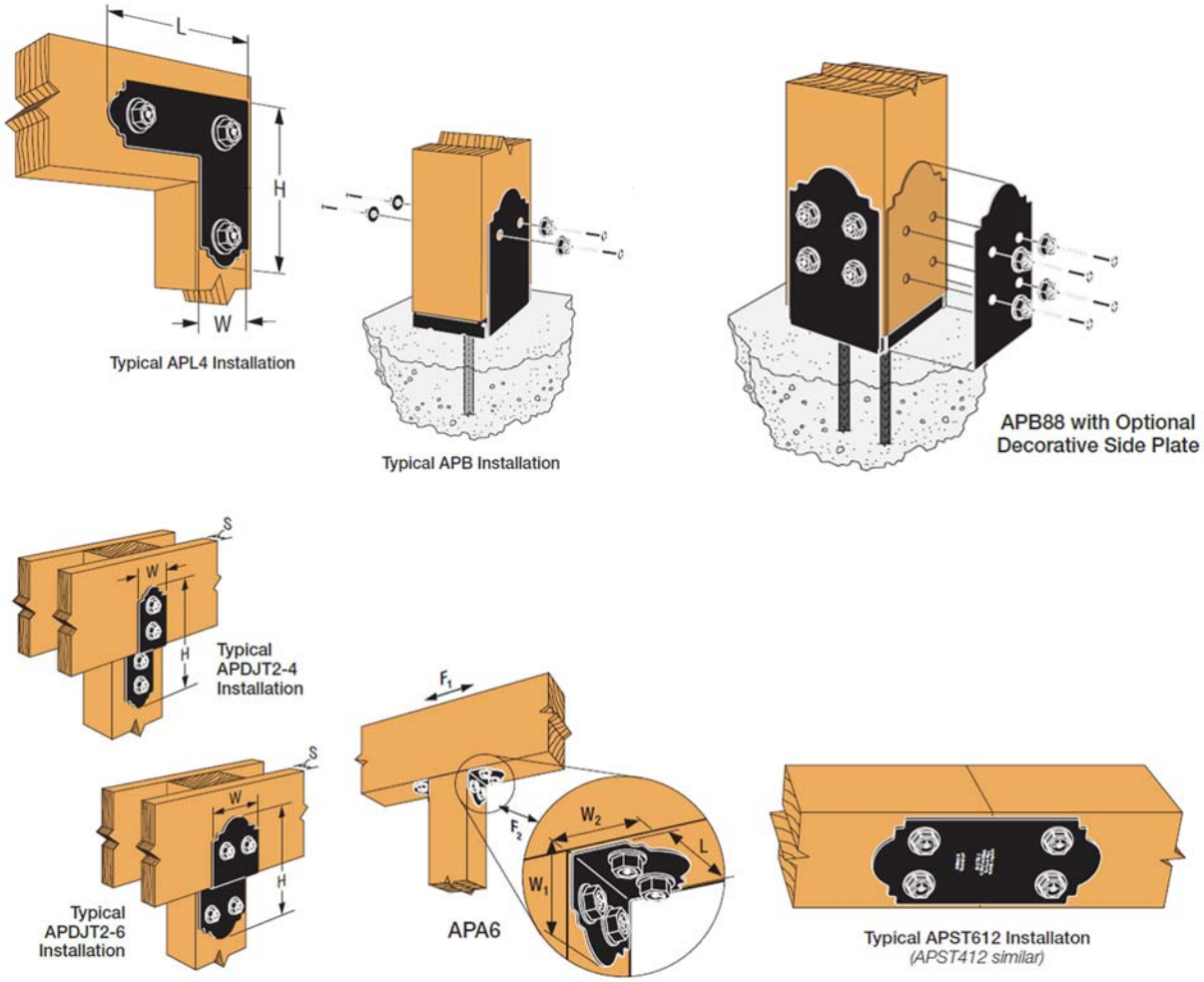
- Use all specified fasteners; see General Notes
- Use of the Outdoor Accents connectors requires the use of Hex-Head Washer (STN22) with Structural Wood screw (SDWSDBB). Some items require Strong-Drive® SD Connector screws.

[18] Bob Bouchet Deposition, Exhibits 9, 10, and 14.

[19] *Id.*, Exhibit 14, p. 318.

119. In addition to the packaging directing the user to combine the Hex-Head Washer and Structural Wood Screw, the two products are displayed near each other in building supply and hardware stores.[20]

120. Also, in the Outdoor Accents portion of the 2019-2020 Simpson Wood Construction Catalog, pages 314-317 show numerous applications of the Hex-Head Washer and Wood Screw components assembled together in practical applications.[21]



[20] Jason Liebreich Deposition 91:1-94:14, Exhibit 377.

[21] Bob Bouchet Deposition Exhibit 14 at 314-17

121. Other Simpson sales literature also show the Hex-Head Washer and Wood Screw combined in practical applications.[22] The two Simpson components are intended to be used as a system.[23]

122. In my opinion, by Simpson's direction to third-party infringers to assemble of the Simpson Hex-Head Washer and Simpson Structural Wood Screw products, Simpson indirectly infringes claims 1-5 and 7 of the '998 Patent.

C. Contributory Infringement

123. As shown in the infringement chart in Table 10 and discussed below, I conclude that the Hex-Head Washer (i) is a material part of the invention in claims 1-5 and 7 of the '998 Patent and (ii) is not a staple article or commodity of commerce suitable for substantial non-infringing use. In my opinion, Simpson contributorily infringes claims 1-5 and 7 of the '998 Patent when supplying the Hex-Head Washer to third-party direct infringer as there are no substantial non-infringing uses of the Hex-Head Washer.

124. The Hex-Head Washer is not a staple article or commodity of commerce suitable for substantial non-infringing uses as is evident in both Simpson's witnesses' testimony and Simpson's marketing materials.[24] Specifically, Simpson has received extensive code approvals for the use of the assembled Hex-Head Washer and Structural Wood Screw[25], with various wood

[22] Bob Bouchet Deposition, Exhibits 9 and 10

[23] Bob Bouchet Deposition, 109:15-20; Jason Liebreich Deposition, 34:14–35:9, 81:20–82:8, 90:1-14; Chris Paterson Deposition, 137:3-15.

[24] Sokho Yim Deposition, 158:4-18; David Balzhiser Deposition, 64:1-12; 238:01-13.

[25] Bob Bouchet Deposition, 36:4-39:13, Exhibit 10; Sam Hensen Deposition, 55:21-57:16, Exhibit 399.

construction connectors as shown in the 2019-2020 Catalog on pages 314-321.[26] The Hex-Head Washer is never recommended for use without the Structural Wood Screw.[27]

125. While the Hex-Head Washer resembles a hexagon head nut or bolt head when assembled with the wood screw but it has no internal threads and the tapered upper recess and thru hole are precisely manufactured to receive the head of the Wood Screw.[28] The top surfaces of the wood screw and the washer are designed to be substantially flush when assembled.[29]

126. The diameter of the head of the screw and the diameter of the recess are designed and manufactured to minimize or eliminate the gap in their two diameters when assembled.[30] This need for a minimum or zero gap was important enough that the head diameter of the screw and the inner diameter of the washer were intentionally toleranced such that the screw head diameter could be slightly larger than the recess in the washer.[31] When this dimensional interference occurs some of the anticorrosion coating of the washer and the screw is removed by abrasion and was considered acceptable. This loss of coating would lower the corrosion resistance of the assembly, but this was deemed acceptable to preserve the exterior appearance of the Hex-Head Washer/Wood Screw assembly.[32]

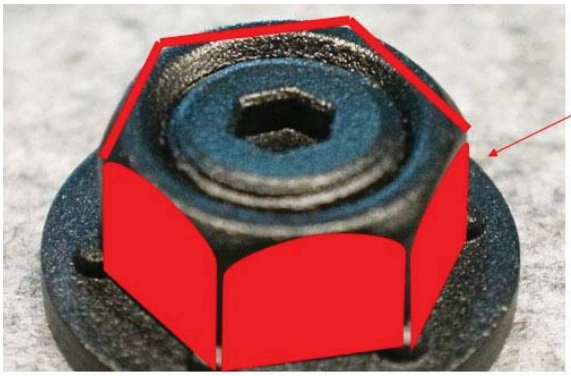
D. Examination Of The Commercial Embodiments Of The '998 Patent

127. In the tables below, I offer a comparison of the claims from the '998 Patent with the OZCO commercial embodiments. As above, I have applied computer generated highlights to

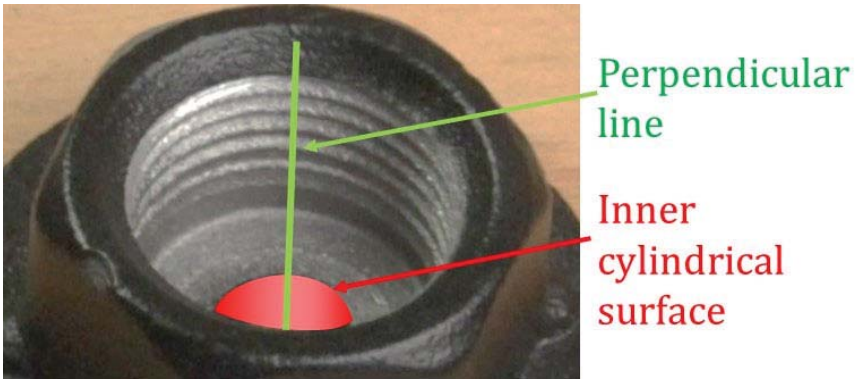
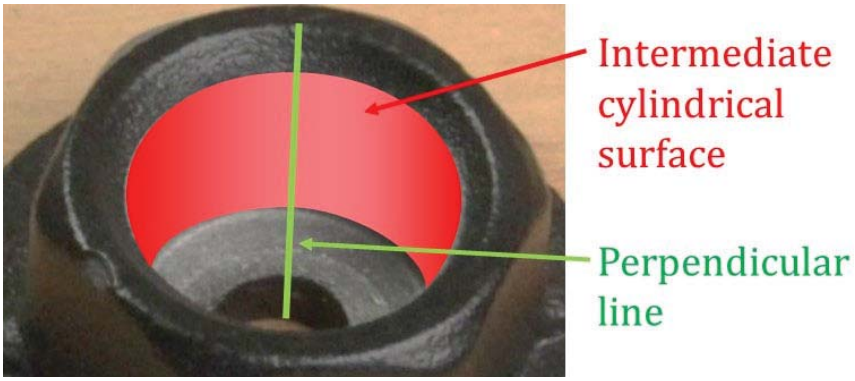
[26] Bob Bouchet Deposition, Exhibit 14.
[27] Sokho Yim Deposition, 154:16-20.
[28] Sokho Yim Deposition, 74:13-75:12.
[29] Bob Bouchet Deposition, 157:17-22.
[30] Bob Bouchet Deposition, 154:15-23.
[31] Bob Bouchet Deposition, 153:16-23.
[32] Bob Bouchet Deposition, 154:10–155:25; Ex. 35.

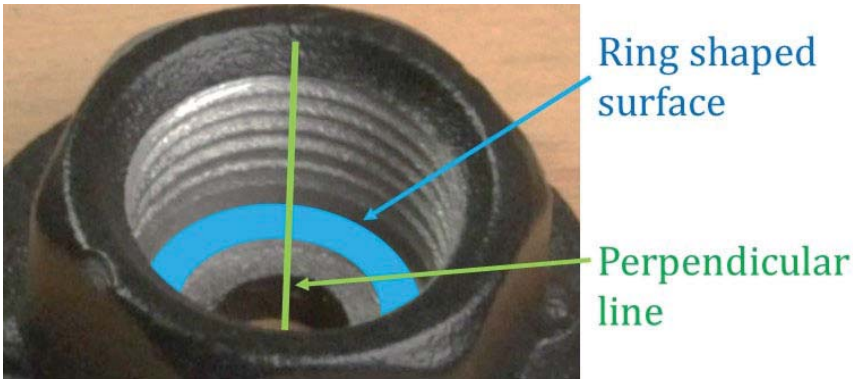
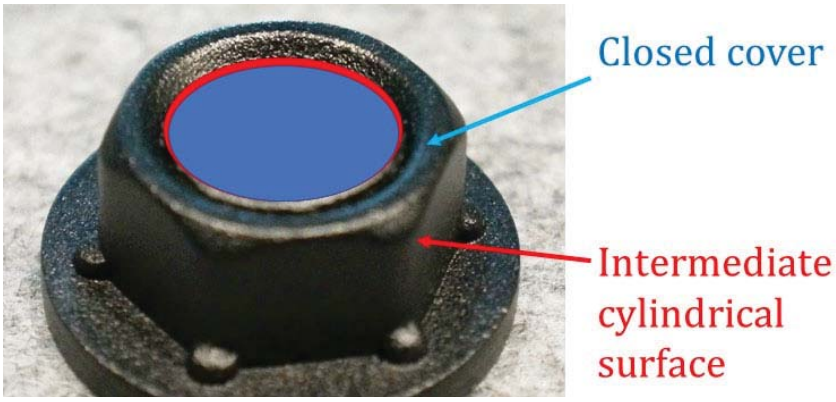
selected images below. The application of color or outlines has in no way altered or modified the underlying drawing or photograph, and each image continues to provide a complete and accurate indication of the design elements found in and embodied by these products. The same analysis could be presented with non-highlighted versions of the photos shown below.

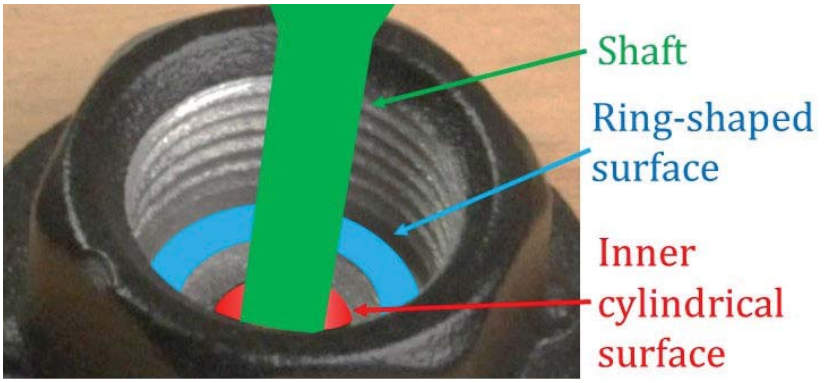
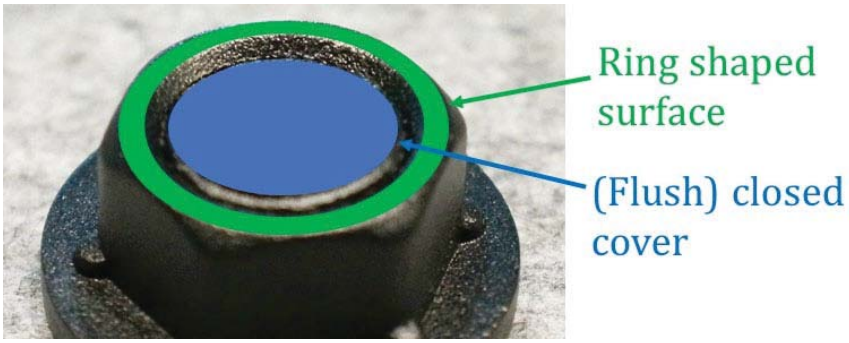
Table 12 : Comparing Claims of the '998 Patent To The Commercial Embodiment

An apparatus comprising: a washer/nut member comprising; *apparatus is defined as "a mechanical device or set of devices esp for a particular purpose…"* [33] *The Court construed the phrase "a washer/nut member comprising" to be a preamble that is not limiting.* (Dkt. 71 at 15.)	 The OZCO Product comprises of an integrated assembly. It has a washer/nut.
a plurality of outer surfaces disposed in a hexagonal shape; *plurality is construed as "**two or more**"* (*Id.*) *hexagonal shape is construed as "**shape with six sides**"* (*Id.*)	 The OZCO Product has six sides.

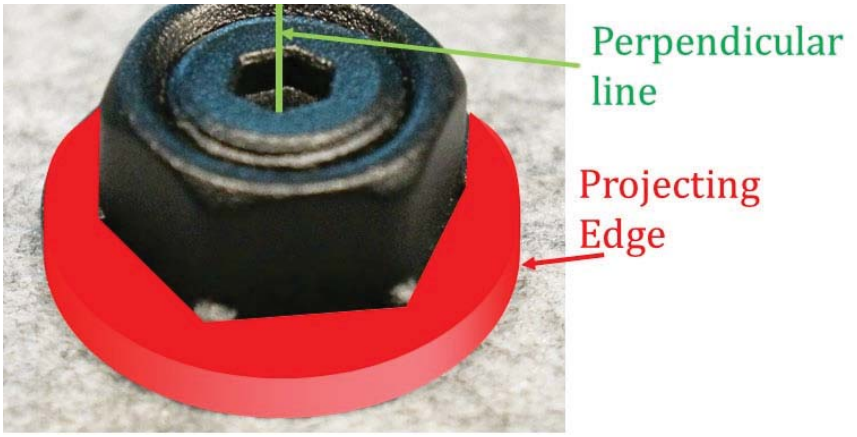
[33] American Heritage Desk Dictionary, Fifth Edition

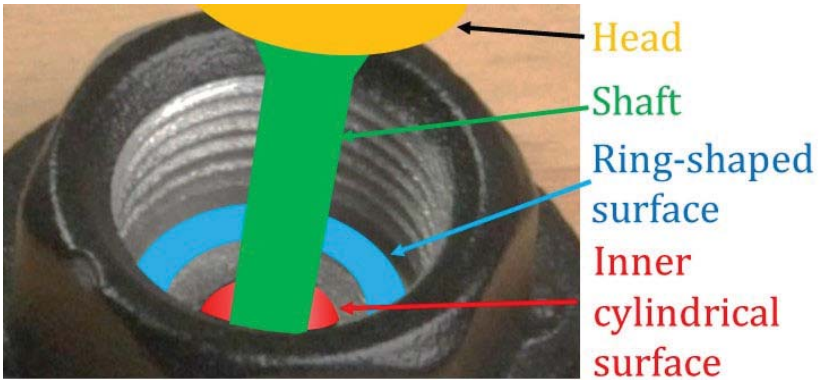
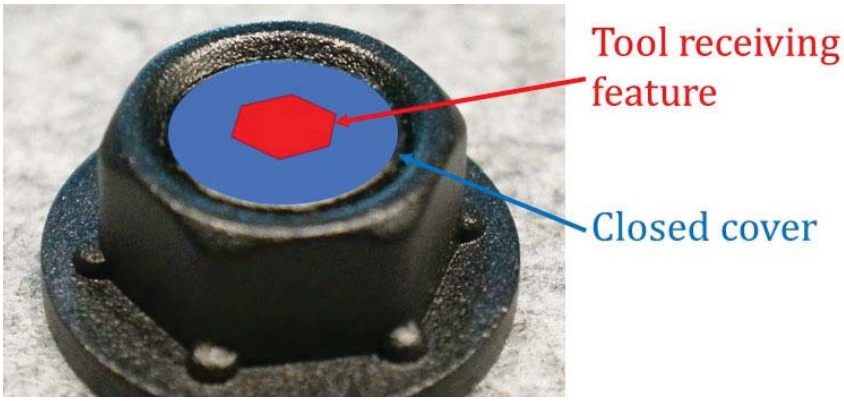
an inner cylindrical surface disposed radially internal to the plurality of outer surfaces *disposed radially* *is construed as "**extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member.**"* (*Id.*)	 The OZCO Product has an inner cylindrical surface extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member.
an intermediate cylindrical surface disposed radially between the plurality of outer surfaces and the inner cylindrical surface; and *disposed radially* *is construed as "extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member"* (*Id.*)	 The OZCO Product has an intermediate cylindrical surface extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member.

an annular surface disposed radially between the inner cylindrical surface and the intermediate cylindrical surface and *annular surface* is construed as "***a ring-shaped surface between two circles***" (*Id.*) *disposed radially* is construed as "***extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member***" (*Id.*)	 The OZCO Product has a ring-shaped surface between two circles, extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member.
a cap disposed within the intermediate cylindrical surface *cap* is construed as a "***closed cover***" (*Id.*) *disposed within* is construed as "***situated entirely within***" (*Id.*)	 The OZCO Product has a closed cover situated entirely within the intermediate cylindrical surface

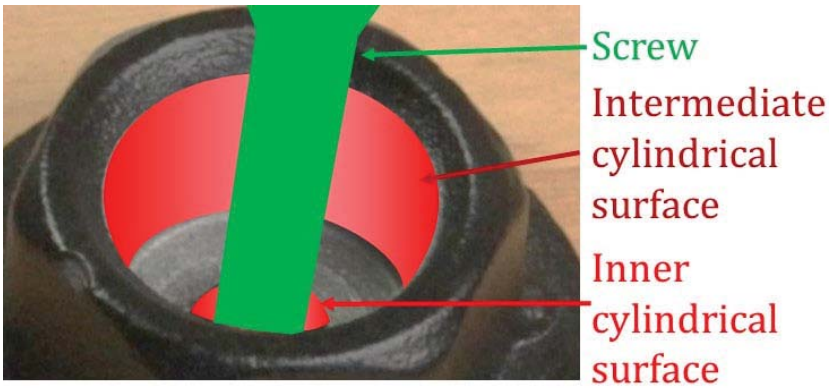
wherein the inner cylindrical surface is configured to surround a shaft portion of a screw that contacts the annular surface ***shaft portion*** *is construed as having a "plain and ordinary meaning"* (*Id.*) ***screw*** *is construed as having a "plain and ordinary meaning"* (*Id.*) *annular surface is construed as a "**ring-shaped surface between two circles**"* (*Id.*)	 The OZCO Product has an inner cylindrical surface configured to surround a shaft portion of a screw that contacts the ring-shaped surface between two circles.
and wherein the washer/nut member further comprises an upper annular surface and a flat surface of the cap is substantially flush with the upper annular surface. *annular surface is construed as "**a ring-shaped surface between two circles**"* (*Id.*) ***flush*** *is defined as "having surfaces in the same plane"* [34]	 The OZCO Product has a washer/nut member further comprising an upper ring-shaped surface between two circles and a flat surface of the cover is substantially flush with the upper ring-shaped surface.

[34] American Heritage Desk Dictionary, Fifth Edition

Claim 2: The apparatus of claim 1 wherein the washer/nut member further comprises a flange portion disposed radially external to the plurality of outer surfaces. *flange portion* is construed as *"**a projecting edge**"* (Dkt. 71 at 15.) *flange portion is also construed that it "may but need not be combined with the washer/nut member."* (*Id.*) *disposed radially* is construed as *"**extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member**"* (*Id.*)	 The OZCO Product has a washer/nut member further comprising of a projecting edge extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member, external to the plurality of outer surfaces.

Claim 3: The apparatus of claim 1 further comprising the screw wherein the shaft portion of the screw is surrounded by the inner cylindrical surface and a head portion of the screw contacts the annular surface ***screw*** *is construed as having a "plain and ordinary meaning" (Id.)* ***head portion*** *is construed as having a "plain and ordinary meaning" (Id.)* ***shaft portion*** *is construed as having a "plain and ordinary meaning" (Id.)* *annular surface is construed as "**a ring-shaped surface between two circles**" (Id.)*	 The OZCO Product also comprises the screw wherein the shaft portion of the screw is surrounded by the inner cylindrical surface and a head portion of the screw contacts the ring-shaped surface between two circles.
Claim 4: The apparatus of claim 1 wherein the cap includes a tool receiving feature. *cap is construed as "**a closed cover**" (Id.)*	 The OZCO Product has a closed cover which includes a tool receiving feature.

Claim 5: The apparatus of claim 4 wherein the tool receiving feature is an opening.	 The OZCO Product has a tool receiving feature that is an opening.

Claim 7: The apparatus of claim 5 further comprising the screw received through the inner cylindrical surface and the intermediate cylindrical surface ***screw*** *is construed to have its "plain and ordinary meaning"* (*Id.*)	 The OZCO Product further comprises of a screw received through the inner cylindrical surface and the intermediate cylindrical surface.

V. EVIDENCE OF THE SIMPSON'S INTENT TO CREATE CONFUSION ON THE MARKETPLACE

A. Simpson Provides No Evidence Of Iterative Development.

128. I understand that Simpson did not provide any sketchbooks, renderings, design review documents, marketing presentations or other similar materials in response to OZCO's discovery requests for such documents. I would refer to materials of this nature as "Development Documents."

129. In the course of designing any product, a designer must conceive and advance a new design through a process of concept generation (sometimes called ideation by designers), development and finalization of the design, which occurs *prior* to documenting that design through CAD software (which is used primarily for purposes of creating engineering and manufacturing data for production purposes, such as building injection molded tooling.) While a variety of software packages are available to use as tools in the ideation process, and many designers prefer these to "pencil on paper" sketching, their output is generally quite distinct from that of CAD software used for engineering and production purposes.

130. Ideation is a creative process through which a designer, or team of designers, generates and refines a large number of ideas. This is most often achieved through some form of sketching (via pen on paper, computer-based sketch tools, and/ or the fabrication of quick 3D sketch models.) While every designer has their own process, and may use different tools to generate a range of ideas for review, refinement, and eventually selection, this creative ideation process is critical to the inception of any new design.

131. The absence of any record of such an ideation process leading to the design of the Accused Products is striking. If the Accused Products were in fact designed from scratch, a variety of Development Documents would be available to demonstrate such inception and

development. Without evidence of these design activities or efforts by the Simpson, it would appear that the design of the Accused Product must have originated through some other, less inventive process.

132. Additionally, the fact that most of the dimensions of the Accused Product near exactly match those of the OZCO product demonstrates that the OZCO product was the basis for the Simpson's design and that any changes made to the design were minor and did not create enough separation from the source of the design.

133. Based on the opinions explained above, the only reasonable conclusion which can be made as to how the Accused Products came to appear nearly identical to the protected designs of the '701 Patent and the invention claimed in the '998 Patent and the Commercial Embodiments is that Simpson merely copied the OZCO designs.

134. The clear similarity between the Accused Products and the OZCO product also leads to confusion with Simpson's own staff. I have reviewed the Deposition Transcripts and my attention was brought to the comments by Thom Murphy where he states that he, as Product Manager For Connectors at Simpson Strong Tie can only tell the difference between the Accused product and the OZCO product if up close:

> **Q So you would have to actually get in close to see the differences between the two nuts?**
>
> **A I would think so.**
>
> **Q How close like?**
>
> **A For me, probably 2 or 3 feet.**[35]

[35] Thom Murphy Deposition, 175:13-17; see also Thom Murphy Deposition, 188:1-190:16, 196:8-197:18, 242:25-244:17, 257:23-259:13

VI. CONCLUSION

135. For the reasons stated in this report, it is my opinion that the Accused Product infringes on the '701 Design Patent under 35 U.S.C. § 271(a).

136. For the reasons stated in this report, it is my opinion that the Accused Product directly infringes claims 1-5 and claim 7 of the '998 Utility Patent under 35 U.S.C. § 271(a).

137. For the reasons stated in this report, it is my opinion that Simpson indirectly infringes claims 1-5 and 7 of the '998 Patent.

VII. RESERVATION OF RIGHTS

138. My current opinions are set forth in this report. However, my analysis is continuing, and I thus reserve the right to supplement or amend my report and to rely on additional documents, prior art, or discovery or testimony that may come to my attention.

139. Moreover, I may make additions, deletions, or modifications to this report and my opinions in the future that would be reflected in my testimony at the trial and/or additional reports that I may be asked to submit in this case. I also reserve the right to rely on all other expert reports submitted in this case. For the forthcoming trial, I may prepare diagrams, charts, other demonstratives, and/or demonstrations, that illustrate the issues presented. I reserve the right to respond to additional arguments or analyses proffered by expert witnesses and/or the Simpson, and I understand that I may be asked to give rebuttal testimony on matters not covered in this expert report.

Respectfully Submitted,

Paul Hatch 6/19/19

APPENDIX A – RESUME OF PAUL HATCH

Professional Experience:

Oct 1998 - present	CEO, TEAMS Design USA, Inc
May 2014 - 2018	Co-Founder, Design House
April 1993 - Oct 1998	Senior Designer, TEAMS Design GmbH, Germany.
Sept 1991- Sept 1992	Junior Industrial Designer, IDEA Design, Germany
July 1991 – Sept 1991	Junior Industrial Designer, Schroerdesign, Germany
June 1990 –Sept 1990	Junior Industrial Designer, DA Display Ltd, UK

Education:

1986- 1988 Diploma in General Art & Design, Sutton Coldfield College of Further Education, Sutton Coldfield, West Midlands, UK.

1993 BA (Hons) Degree 'Design For Industry' from University of Northumbria at Newcastle, Newcastle-upon-Tyne, UK.
1996 VHS certificate in "Italienisch" (Italian language) at Volkshochschule Esslingen, Germany.
2015 Certification as Expert Witness from International Design Society of America.

Books Published

2005 'Impact, the Synergy of Technology, Business and Design' (contributor)
2006 'REALIZE – Design Means Business' (co-editor and contributor)
2008 Chinese translation of "REALIZE - Design Means Business"
2009 Portuguese translation "REALIZE - Design Means Business"

Published Articles and Papers:

Innovation Magazine: "Design Is Dead, Long Live Design", June 2018
LinkedIn Pulse: "Disruptive Innovation …For Stability", May 2017
Innovation Magazine: "The State of Design – Maintaining a Proper Vision", Summer 2016
LinkedIn Pulse: "Getting Emotional – Design, UX and Magic" – Sept 2016
LinkedIn Pulse: "The Local Revolution –How Design is Reinventing Manufacture", Mar 2016
LinkedIn Pulse: "Design Thinking Is Only Half The Story", Jan 2016
LinkedIn Pulse: "The Macintosh Moment –Why IoT Needs ID, UX and Design Thinking" Feb 2016
LinkedIn Pulse: "User Experience – Fun For All The Family", Dec 2015
Innovation magazine: "To Design Is Human", Spring 2013
Innovation magazine: "Finding The Sweet Spot", Spring 2010
Insight magazine: "Profit, By Design", April 2005
Innovation magazine "Designer In The Middle", Spring 2004
Innovation magazine: "How To Avert The Asian Shift", Fall 2004
International Housewares Association Magazine: "Brand Differentiation Through Design Details", Feb 2003

Television, Book and Magazine Interviews

Appliance Design Magazine: "The Internet of Things and The Pampered User", March 2019
Appliance Design Magazine: "Connected Product Design", July 2018
Appliance Design Magazine: "Paul Hatch Discusses the Intersection of Quality Data and a Better User Experience, April 2018
Bosch Connected World: "Industrial Design in the Age of IOT", Feb 2018
Child Art /Learning From Design: "Paul Hatch" , Fall 2016
Pittsburgh Technology Council (site): "It's All In The Jam!", Feb 2016
Chicago Tribune: "How A Group of Chicago Product Designers Aims to Boost Manufacturing", June 30

2014
IDSA site: “Paul Hatch on The Changing Mechanics of the Design Business”, June 2014
(Book) “Breaking In” by Amina Horozic, May 2014
(Book) “Drawing For Product Designers” by Kevin Henry, Sept 2012
Taiwan “Designer” Magazine: “Teams Design To Success in Past 50 Years”, Dec 2011
IDSA site: “What Paul Hatch Thinks About Contrast”, Mar 2011
New York Daily News: “From 0 to 60 in the Kitchen”, June 2009
(Television) “190 North”, June 2006
Appliance Design Magazine: “IATC Review: Taking A World View”, May 2006
Appliance Design Magazine: “Industrial Design and Human Factors”, March 2004
(Television) “World Business Review with Alexander Haig”, May 2003

Conference Presentations, Proceedings and Invited Lectures:
Keynote Speaker: UX and IOT – Newell Congress Chicago, July 2018
Invited Speaker: Connecting the Smart Home to the Homeowner – International Housewares Show, Jan 2018
Invited Panelist: Intellectual Property and Design Rights – 13th Annual Foley IP Conference, Sept 2017
Keynote Speaker: Naked Design and Visual Perception – North Carolina State University, Nov 2017
Keynote Speaker: Communicate or Die – UIUC, Dec 2016
Keynote Speaker: The World Class Designer – Newell Summit, Kalamazoo, Oct 2016
Invited Speaker: IOT and The Macintosh Moment –Connected World Conference, Sept 2016
Keynote Speaker: Talking Loud & Clear- CSULB San Francisco, Aug 2016
Invited Speaker: UX and IOT – Windy City Things, June 2016
Keynote Speaker: Design For Local – IDSA International Conference, Atlanta, Aug 2016
Keynote Speaker: Design Like an ID-IOT – Manifest, Chicago, May 2016
Keynote Speaker: UX and the ID-IOT – IDSA Western District Conference, Denver, March 2016
Invited Speaker: Brand Personalities – DMI National Conference, Boston, Sept 2015
Keynote Speaker: Design For Local – PD+I Conference, London, May 2015
Keynote Speaker: Paul Hatch and the Evolution Of Consumer Products – Garmin Center, March 2015
Invited Speaker: The Changing Mechanics of the Design Business, IDSA International Conf, Austin, June 2014
Invited Speaker: Design as a Center Of Excellence – Bosch Global Summit May 2014
Keynote Speaker: Visual Perception and the Designer – Purdue University Oct 2013
Invited Participant: The Meaning Of Life – Ignite Talk, ORD Camp, Chicago May 2013
Keynote Speaker: Communicate Or Die – IDSA Midwest District Conference 2012
Keynote Speaker: Designing For International Markets – Stryker Summit, Kalamazoo, June 2012
Invited Speaker: Run Like A Designer – IDSA Southern District Conference, May 2011
Invited Speaker: Reinventing The Wheel - IDSA Midwest District Conference, April 2011
Keynote Speaker: Future Tech trends – IATC Engineering Conference, May 2010
Invited Panelist: The Top i-Gadgets – Consumer Electronics Show, Jan 2010
Invited Participant: Designer Mixtape– IDSA International Conference Aug 2009
Keynote Speaker: Creating A Creative Culture -ID-DNA- IDSA Midwest Conference, March 2009
Invited Speaker: Protecting Brand Equity – PDMA, 2008
Invited Panelist: Developing A Brand Identity To Grow Your Margins -Consumer Electronics Show, Jan 2006
Invited Speaker: Brand Differentiation Through Design Details – International Housewares Show, Jan 2003
Invited Speaker: Design in the USA – USA Forum, Frankfurt Germany, Feb 2000

Awards:
2000

Design of the Decade (IDSA /BusinessWeek): Karcher Full Line of Power Washers
I.D. Magazine Design Awards: Siemens Easy Control Climate Control Unit
iF Product Design Award: Siemens Easy Control Climate Control Unit
2001
iF Product Design Award: Karcher HDS 698 CSX Heated Pressure Washer
2005
Good Design Award: LR Nelson Costco 3 Piece Nozzle Set
2008
ADEX Award: Mansfield Reo Bathroom Suite
ADEX Award: Mansfield Essence Bathroom Suite
Good Design Award: Argus Camera Kid's Cameras Bean and Sprout
Spark Award Bronze: Precise Path RG3 Mower
2009
Appliance Design EID Silver Award: Robert Bosch RS35 Reciprocating Saw
Appliance Design EID Silver Award: Argus Camera Company Kid's Cameras Bean and Sprout
IHA Award: Wusthof-Trident Precision Edge Electric Knife Sharpener
IHA Award: Smith's Edge Diamond Edge Electric Knife and Scissors Sharpener
Good Design Award: Robert Bosch Pneumatic Nailers
Good Design Award: RS35 Demolition Reciprocating Saw
Good Design Award: Precise Path Robotics RG3 Robotic Greens Mower
IDEA Award: Argus Bean Children's Digital Camera
2010
iF Product Design Award: Mr. Coffee Optimal Brew Thermal Coffeemaker
ID Magazine Annual Design Review: Robert Bosch Full Force Pneumatic Nail Guns
Appliance Design EID Award: Federal Signal Automated Parking Products
Appliance Design EID Award: Robert Bosch Full Force Pneumatic Nail Guns
Appliance Design EID Silver Award: Federal Signal Automated Parking Products Universal One & Universal PS
Appliance Design EID Silver Award: Robert Bosch Full Force Pneumatic Nail Guns
Appliance Design EID Bronze Award: Sunbeam Products Flat Panel Heater
Appliance Design EID Award: Sunbeam Products Flat Panel Heater
2011
Appliance Design EID Silver Award : Business Machine – HoMedics Inc. Black & Decker Hanging Crosscut 6-Sheet Paper Shredder
Appliance Design EID Silver Award: Small Appliances – Robert Bosch Corp., 12" Dual-Bevel Glide Miter Saw
Appliance Design EID Silver Award: Small Appliances – HoMedics Inc., Black & Decker iShred
Appliance Design EID Bronze Award: Small Appliances – Jarden Consumer Solutions, Mr. Coffee Optimal Brew Thermal Coffeemaker

Professional Honors and Other Achievements:
2018 Presented the IDSA Fellowship Award.
2016 was elected onto the board of the IDSA as Director-at-Large.
2015 Called to meeting at The White House by Barack Obama and Secretary of Commerce Penny Pritzger for Forum on supporting US manufacture.
2014 Founded Design House Inc, a nonprofit organization whose mission is to help revitalize local manufacture through design.
2013 Elected Chair of IDSA International Conference ‘Breaking The Rules’
2009 Third design professional ever to be awarded the IDSA Midwest Honors for Outstanding Achievement.
2005-07 Elected to The Board of Directors, Industrial Designer Society of America.

2006 Elected Chair for IDSA Midwest Conference “Home, Urban Seduction & Design”, Chicago, IL
2005 Elected Chair for IDSA Midwest Conference “Impact -Design Means Business” at University of Urbana-Champaign, IL.
2005 Founded and ran ‘Fight Club’, which NY Times called “A Designer Slugfest”. It later became a pilot Reality TV show.
2004 Elected Chair for IDSA Midwest Conference “Shift Happens”, Chicago, IL
2000 Received the “Design of The Decade Award” from Business Week and the IDSA for TEAMS Design’s achievements.

Professional Affiliations
Industrial Design Society Of America (IDSA)
Design Management Institute (DMI)

Languages
English (native)
German (fluent)
Italian (basic)
French (basic)

LIST OF PATENTS (Design patents, utility patents and patents pending).

10,194,763	2019	Food Product Dispenser and Valve
2019/0006,862		Power pack vending apparatus, system and method of use
10,084,329	2018	Power pack vending apparatus, system, and method of use
D800803	2017	Table Saw
D794407	2017	Power tool
9,717,354	2017	Food product dispenser and valve
D761337	2016	Saw
9,132,559	2015	Cutlery having improved gripping ergonomics
2014/0214,518		System and method for price matching and comparison
D689252	2013	Portion of floor cleaning machine
D686791	2013	Vacuum cleaner handle
D674371	2013	Portable audio device
D646935	2011	Cutlery block
D645715	2011	Pull saw
D639616	2011	Cutlery handle
D639615	2011	Cutlery handle
D639614	2011	Cutlery handle
7,703,750	2010	Storage apparatus
2010/0037,787		Rotary food cutter with removable blade assembly
7,708,167	2010	Dispensing Apparatus
D607024	2009	Hinge boring bit
D594292	2009	Pizza cutter
D593817	2009	Box grater
D591118	2009	Bottle opener
D584111	2009	Colander
D583207	2008	Can opener
2008/0093,489		Spice Grinder Assembly with Grind Adjusting Wheel
7,325,785	2008	Storage apparatus
D565164	2008	Volatile Dispenser
D559640	2008	Palm Grip Sander
D555435	2007	Spice grinder
D550027	2007	Pan handle
D555902	2007	Case for tool accessories
D553857	2007	Case for tool accessories
D553233	2007	Volatile Dispenser
7,270,496	2007	Ring Mechanism for a ring binder
D533041	2006	Drilling and driving tool
D523634	2006	Insert bit dispenser
D518893	2006	IV Pole
D525096	2006	Tuck pointer
6,983,930	2006	Clamping device with flexible arm
6,969,031	2005	Adjustable moveable IV stand
2004/0151,531		Sound deadening mechanism for a ring binder
EP1,706,010	2004	IV Pole

6,754,935	2004	Power tool handle
EP1,509,366	2003	Power Tool Handle
D470871	2003	Mobile oil dispenser
D475595	2003	Circular saw with top handle
D475265	2003	Circular saw with rear handle
D441342	2001	Power station with corded backup

APPENDIX B – PRIOR TESTIMONY

The following is a list of all cases I have testified as an expert witness.

Year	Case	Case Number	Type	Report, Deposition or Trial	Represented
2019	Black & Decker Corporation v. Harbor Freight Tools	JAMS Case No. 1340016328	JAMS Arbitration, Design Patent, Utility Patent, Trade Dress	Report	Defendant
2019	Focus Products Grp, Int'l & Zahner Design & Hookless Systems & Sure Fit Home v. Katri Sales, Co. & Marqui Mills Int'l	1:15-cv-10154	Trade Dress, Trademark, Design Patent , Utility Patent	4 Reports and Deposition	Defendant
2018	Spigen Korea Co. Ltd v. Ultraproof Inc	2:17-cv-01161	Design Patent	Report, Deposition	Defendant
2017-8	Post Consumer Brands v. General Mills	4:17-cv-02471	Design Patent	Report, Deposition	Defendant
2016	Focus Products Grp, Int'l & Zahner Design & Hookless Systems & Sure Fit Home v. Kartri Sales, Co. & Marqui Mills Int'l	1:15-cv-10154	Utility Patent	Expert Report	Defendant
2008-9	Hitachi Koki Co., Ltd v. Dudas, US Patent and Trademark Office.	1:2007cv01504	Utility Patent	Report, Deposition, Trial	Simpson
2005-6	One World Technologies, Ltd., et al v. Rexon Ind Corp Ltd, Porter-Cable, et al.	1:2005mc10228	Utility Patent	Report, Deposition, Trial	Defendant

APPENDIX C - MATERIALS REVIEWED BY PAUL HATCH

- U.S. Design Patent 798,701 and U.S. Patent No. 9,957,998
- Simpson's Original Complaint Dkt. 1
- OZCO's Answer to Second Amended Complaint and Counterclaim for Patent Infringement Dkt. 53
- Order re Joint Stipulated Discovery Schedule Dkt. 55
- Modified Scheduling Order Dkt. 91
- 2nd Amend Complaint for Decl Jdgmt of Non-Infring and Invalidity.pdf RE: Simpson v. OZCO Pleadings Dkt. 52
- 2018-11-01 Simpson's Response to 1st ROG
- 2019-01-29 Simpson's Response to 2nd ROGs
- 2018-11-01 Simpson's Response to 1st RFPs
- 2018-11-01 Simpson's Response to 1st RFAs
- 2018-11-01 Simpson's Amended Initial Disclosure
- 2018-09-25 OZCO's Initial Disclosures
- Simpson's Responsive Claim Construction Brief Dkt. 79
- Simpson's Invalidity Contentions
- Claim Construction Order, Dkt. 87
- OZCO's claim construction brief Dkt. 74
- OZCO's reply in support of claim construction brief Dkt. 80
- Tentative Claim Construction, Dkt. 83
- Depositions and Exhibits
    - Thom Murphy
    - Elizabeth Rajs
    - David Balzhiser
    - Bob Bouchet
    - Greg Boyd
    - Sam Hensen
    - Ian Hill
    - Jesse Gomez
    - Lin Jinjie
    - J. Liebreich
    - Robert Leichti
    - Kerri Moss
    - Chris Paterson
    - Tony Radilla
    - Jerry Trahan
    - Sokho Yim
- Simpson's Expert Designation
- Northern District of California Model Patent Jury Instructions
- Excerpts from the American Heritage Desk Dictionary, Fifth Edition

Exhibit E

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

SIMPSON STRONG-TIE COMPANY INC.,	)	
Plaintiff,	)	
vs.	)	NO. 3:18-CV-0118-WHO
OZ-POST INTERNATIONAL, LLC dba OZCO BUILDING PRODUCTS,	)	
Defendant.	)	

ATTORNEYS' EYES ONLY

SUBJECT TO PROTECTIVE ORDER

VIDEOTAPED DEPOSITION OF THOM MURPHY

San Francisco, California

Tuesday, April 30, 2019

Reported by: Ashley Soevyn, CSR No. 12019

Job No. 23333

Pages 1 - 288

Page 26

start working with this engineer and start -- start this -- I was asked by my boss.
Q Who was your boss at the time?
A Sam Hensen.
Q So Mr. Hensen came to you and said, "I want you to work on this project."
A Yeah. It was an assignment, correct.
Q Okay. Do you know how long the project had been, I guess, in development by the time you had gotten involved?
A I know they had some samples or it sat for a while, but I would guess at least six months, maybe a year.
Q Okay. It sat for a while; what do you mean by that?
A Like, they developed some ideas, but, you know, they -- maybe it got sat on the side. You know, it wasn't an active project. It was kind of like R&D where you're looking at something, thinking about something, but it wasn't -- there wasn't a strategic plan developed, to my knowledge.
Q Until you got involved.
A Yeah. And then it became part of a business plan.
Q Do you have any idea of why it got sat on

Page 27

the side?
A No.
MR. THOMAS: Do you have some stickers ready for me?
THE REPORTER: Yup.
MR. THOMAS: Do you remember signing a declaration or providing a declaration in this case?
(Exhibit 291 marked for identification.)
MS. MINOR: I don't even remember the declaration.
MR. THOMAS: Yeah. I remember --
THE WITNESS: Or that I would be deposed; is that what you mean?
MS. MINOR: Just take a look at it.
MR. THOMAS: Let me show you what I'm marking as Exhibit 291. This is a declaration you signed in February of last year.
THE WITNESS: Yeah. I remember this.
BY MR. THOMAS:
Q This is related to the Motion to Transfer Venue that was on file between the parties. Do you recall reviewing that motion in any length?
A Yes.
Q Okay. So if you look at paragraph 7, in paragraph 7, you state about -- I'm going to start

Page 28

the second sentence:
"The product line, named Outdoor Accents, is comprised of various sizes and styles of connectors and the Connector Screw, the Structural Wood Screw, and the Hex-Head Washer. The Structural Wood Screw, when used with Hex-Head Washer, offers the appearance of a bolted connection."
Do you see that?
A Yes.
Q So is it true to say that the ultimate goal of the structural wood screw and the Hex-Head washer was to give an appearance of a bolted connection when assembled?
A Yes. The final appearance, but it was also about ease of install. I mean, yes.
Q Okay. We're going to talk about the other attributes, but --
A Okay.
Q -- but my point in this question is just simply, when the ultimate goal is for when the Hex-Head washer and screws associated with it are installed, it gives the appearance of a bolted connection.

Page 29

A Yes.
Q Okay. And if you look at paragraph 13:
"I understand OZCO has asserted that Simpson Strong-Tie 'stole its invention.' The following Simpson Strong-Tie employees will be key witnesses to refute that allegation."
And then you list Mr. Leichti, Mr. Lin, Mr. Balzhiser, Mr. Hensen, Mr. Leibreich, Mr. Bouchet, and Mr. Yim, correct?
A Yes.
Q So is it your contention that Simpson Strong-Tie did not steal OZCO's invention?
A Yes.
Q What is that based on?
A I mean, we're a market competitor. We came out with a competitive product, but we didn't steal anything.
Q You came out with -- so OZCO's product was on the market before your product was?
A Correct.
Q And OZCO's product -- you referenced OZCO's product when developing your product?
A At points, because it was a market competitor, yes.

Page 46

probably at any one time, four or five, maybe more. It depends on how entailed and what gets approved and assigned based off the resources.

Q Now, it seemed to me from reviewing correspondence that this project really started kind of getting going in 2015, early 2016, with a product launch in July of 2016, correct?

A I think that's correct, yeah. Towards the beginning of -- yeah.

Q And so during that time frame, let's say 2015 to July 2016, how many projects were you working on in addition to the Ornamental Accents product line?

A Let's see, what else did I have. I mean, by far, this was my biggest project because there was several products, you know, developing a whole line. There might have been one or two, but this was by far probably 75 percent of my time.

Q Okay. This was the most demanding project on your time?

A Yes.

MR. THOMAS: Let me show you what I'm going to mark as Exhibit 293.

(Exhibit 293 marked for identification.)

Page 47

BY MR. THOMAS:

Q Do you recognize Exhibit 293?

A It looks like an engineering form. This isn't my writing. Maybe this is Bob Bouchet. So engineering has a similar Q program. So, like, if they -- which is kind of weird that they're not linked exactly, but when engineering gets an assignment, they create this EC. This must be engineering.

Q This EC3181?

A Yeah. They have an internal system where they track their projects, even though it's the same project, but it's specific engineering.

Q Okay. So there are effectively two Q projects that correspond with the same product, working in tandem?

A There's one Q, but I don't know. I think it's the same type of program, but it's definitely the same software, but they -- they -- for their engineering part, they put in -- they put in a comment on their own. Because they -- in the engineering workflow, they have specific tasks, so this is how they put attributes to their resources.

Q This looks like, and I don't have any -- any knowledge of this, other than just based on what it looks like. This looks like it was, like, various printouts. There's an e-mail in here and screenshots. It looks like this might be someone's desk file. There's a -- there's a -- at the very end of it, there's an OZCO -- part of an OZCO brochure. Did -- do you know if anybody kept a desk file? Do you know what I -- first of all, do you know what I mean when I say "desk file"?

A You mean a hard copy.

Q Right.

A Yeah.

Q Did anybody keep a desk file when developing the Ornamental Accents product line, to your knowledge?

A Not that I know specifically. I don't know if maybe Bob had a file or not.

Q This isn't your file, though.

A No. This is not my file.

Q Okay. If you look at -- there's a page -- there's a page number in the bottom right-hand corner that's SST03. Do you see where I'm reading?

A Uh-huh.

Q If you go to page 030358.

A Okay.

Page 48

Page 49

Q The top of the page is "The Q: Edit Product Request," and there's some questions, and I can't hardly read what is written here, but if you look about a quarter of the way down the page, it says:

"Describe the product. How should the product be used?"

And then number 5 is:

"Why do we need this product?"

Do you see that?

A Yes.

Q Do you know what the answer to that question was?

A No.

Q Why did Simpson, to your knowledge, develop the Ornamental Accents products?

A We knew architectural or outdoor living was a big trend, and we wanted to get into that market or expand that market. We were already in it, but we wanted to expand into outdoor living.

Q You weren't in the outdoor living space at that point in time.

A We were, but we didn't have as an extensive line as we wanted, but we have products that are used on outdoor structures all at time.

Page 50

Q You didn't have any powder-coated products at that time, correct?
A The architectural products are powder coated.
Q But when you all were developing this product line, you didn't have outdoor powder-coated products?
MS. MINOR: Objection. Misstates testimony.
BY MR. THOMAS:
Q Correct?
A You can order a specific, but we didn't have something -- yeah. We didn't have as an established -- I'm not sure exactly what you're asking, but...
Q Well, like -- like, one of the products developed was a T-strap. Let's just talk about the T strap.
A Okay.
Q You had T-straps already in your product line, correct?
A Yes.
Q But you didn't have a powder-coated outdoor T-strap that can be used on, say, a pergola.
MS. MINOR: Objection. Form.

Page 51

THE WITNESS: I mean, stuff gets used all at time. We didn't have one that we might recommend, but we had several T-straps, as you said.
BY MR. THOMAS:
Q You had T-straps, but you didn't have a black-coated -- black powder-coated T-strap at that time.
A We did have a black powder-coated T-strap.
Q For outdoor use?
THE REPORTER: One at a time.
MR. THOMAS: Sorry.
THE REPORTER: You guys are -- a really bad record, really bad. Okay, let's try one more time. I didn't even get that last question.
BY MR. THOMAS:
Q Sure. Did you have -- before developing this product line, did you have an outdoor black powder-coated T-strap?
A What do you mean by outdoor?
Q Like a T-straps that is black powder-coated, designed and marketed for outdoor use.
A No.
Q And we already discussed, you didn't have

Page 52

the Hex-Head washer before this product line, correct?
A Correct.
Q Was there any other products or that you developed especially for the Ornamental Accents product line?
A I don't understand what you mean.
Q Sure. Through 2015 to 2016, you were developing a whole line of products --
A Many products.
Q Correct?
MS. MINOR: Don't make her mad. When she's mad, I'm mad.
MR. STORM: Maybe we should just say, after today, we'll do this again tomorrow if we need to do it right. I'm teasing somewhat, but...
BY MR. THOMAS:
Q So from 2015 to the launch in 2016, you were developing a line of products, correct?
A Yes.
Q What in that line of products that you developed did Simpson not have before the product line was launched?
MS. MINOR: Objection. Vague.
THE WITNESS: I mean, I don't know. We

Page 53

had -- we have too many products to start with, but we, you know, the idea was to develop a whole market offering for outdoor living with Outdoor Accents. That was the intention.
BY MR. THOMAS:
Q And you didn't have, I guess, before Outdoor Accents, a product line specifically devoted to outdoor living.
A You can use our galvanized stuff. It's just not as pretty, but you could definitely use many of our products, and which has been done for years, in an outdoor living application.
Q So would it be fair to say you didn't have a decorative line of products specifically designed and marketed for outdoor living?
A So with our architectural products, you can order them hot-dipped and then powder-coated, but standard offering for most of them is just black powder coat, so it didn't have that additional hot-dipped galvanized. But you can order many of our products in custom coatings, and then there is also after market, which I've seen many people do. They will take some of our standard products and either enhance them, paint them, or do something different that gives them a desired look or feature.

Page 54

Q But those products would either have to be specially ordered from Simpson or someone else, after market, would have to modify them?
A Correct. For a majority, there might be a few that we stock. It would be more maybe a custom order.
Q So -- so setting aside custom orders, this was the first product line offered by Simpson that offered a decorative outdoor accent -- an outdoor structural supports.
A I mean, some people like our galvanized stuff. You could -- some of it is decorative, but for a specific look and feel, this was the first time we -- we did a whole market for a specific line.
Q Okay. Was the Outdoor Accents products that you developed different from other products that Simpson offers?
A Different how?
Q Different in any way.
A Some of our products require -- or don't require, but have a specific fastener which we tested with them, and so Outdoor Accents wasn't special in that us requiring a specific fastener was nothing new, but I guess the biggest difference was

Page 55

it was a -- this was the biggest kind of product launch we had done in a long time for a whole market offering.
Q So this -- in your mind, this was a whole market offering; that's what was different about this?
A Yeah. It was offering a market approach to outdoor living.
Q But we've been talking about the T-straps.
A Yeah.
Q The Ornamental Accents T-straps, is there -- is that product offered anywhere else in Simpson's catalog?
MS. MINOR: Objection. Vague.
THE WITNESS: I mean, we have many different T-straps, but the one specifically developed in Outdoor Accents was developed using the STN and the structural screw, which we had had.
BY MR. THOMAS:
Q So those products are unique because they use the STN and structural screw?
A They're different, yes.
Q They're different from other Simpson products.

Page 56

A Correct.
Q Because of the structural wood screw and the STN22.
A Correct.
MS. MINOR: We've been going about an hour. Is now a good time to --
THE REPORTER: Yeah. Let's take a break.
THE VIDEOGRAPHER: We are going off the record at 11:04 a.m.
(Recess taken.)
THE VIDEOGRAPHER: We're back on record at 11:16 a.m.
BY MR. THOMAS:
Q So, Mr. Murphy, right before we were taking a break, we were discussing some of the differences between -- or similarities between what was previously offered by Simpson and what ultimately was offered in the Outdoor Accents product line, correct?
A Yes. I think so.
Q What -- if you look with me, there is Exhibit 14. Can you tell me what Exhibit 14 is?
A Looks like the cover of our current wood construction connectors catalog 2019-2020.
Q And if you can, at a high level at least,

Page 57

tell me -- and I will give you -- I'll give you a hint. If you skip, I think, to page 322 of the catalog, it's SST013135. Can you tell me what did Simpson offer -- strike that.
What was Simpson's product offerings that predated the Outdoor Accents product line that could have been used with outdoor structures?
A I mean, so you're referring to these -- we renamed these indoor architectural products, but essentially, you can use these products outdoors if you had them coated.
Q So Simpson didn't coat these for outdoor use.
A Correct. Most of these are just black powder coat.
Q So these would have to be modified if either through a special order or after market in order to be used outdoor?
A Correct.
Q Is there any other -- aside from what we see in -- on page 322 of the catalog, was there anything else that Simpson offered that predated the Outdoor Accents product line that could have been used in, say, construction of a pergola?
A Yeah. Our galvanized connectors.

Page 134

Q And you just took it apart just to see what the market competitor was doing?
A Yes.
Q No other reason?
A I mean, if Honda comes out with a new Accord, Toyota, Ford, Chevy, they all buy it and they look at what the competitor is doing. So, yes.
Q So has -- have you ever disassembled any other OZCO shear tube nut?
A No.
Q The OZCO shear tube nuts we saw earlier were different; there were two, correct?
A Correct.
Q OZCO has released a newer one that's lighter weight. I think you said it may have been plastic at first.
A Yeah, yeah.
Q Correct?
Have you disassembled the newer OZCO nut?
A No.
Q So even though OZCO has released its newer nut, Simpson hasn't taken upon itself to disassemble it and see how it's --
A No.
Q -- manufactured?

Page 135

And that's because Simpson already has its shear tube nut on the market, correct?
A Yeah. I mean, I didn't even know that changed happened, honestly.
Q Did you stop watching what Simpson -- OZCO was doing?
A After it launched, I mean, in the past year and a half, I've worked on many -- many other projects. So Outdoor Accents, they were still doing small releases or whatnot. It wasn't my main focus, like as far as R&D and new work.
Q So while -- while Simpson was in the R&D phase for its Outdoor Accents product line and the STN22, you were studying OZCO's nut, correct?
A Per this e-mail, I --
MS. MINOR: Objection to the form of the question.
THE WITNESS: I looked at this component at the time, yes.
BY MR. THOMAS:
Q But now that Simpson has released its STN22 nut, there -- you haven't taken any -- strike that.
Now that Simpson has released its STN22, you haven't disassembled any of OZCO's products or

Page 136

studied what OZCO is doing with its products.
MS. MINOR: Objection to the form of the question.
(Cross-talking)
THE WITNESS: I haven't been on the product for six months, and I haven't worked, you know, significantly on any new development for more than probably a year and a half or two years, so...
BY MR. THOMAS:
Q So is it fair to say that Simpson released its products in July of 2016 to Home Depot, I think?
A I think so.
Q So from the date of -- from July 2016 to approximately six months ago, when you rolled off the project, did you ever disassemble any of OZCO's products?
A In the past six months?
Q No. From the date of the release in July 2016 to the date you rolled off the project, about six months ago.
A I think this is the only reference that I can think of, yeah.
Q And this was when you were in R&D phase for Simpson's STN22, correct?

Page 137

MS. MINOR: Objection. Asked and answered and to the form of the question.
THE WITNESS: Yes.
MR. THOMAS: Show you what I'm going to mark as Exhibit 310 [sic].
(Exhibit 309 marked for identification.)
THE WITNESS: Thought it was 308.
MS. MINOR: 309.
MR. THOMAS: It should be 309.
THE REPORTER: 309. You can scratch that.
MR. THOMAS: It's that project manager attention to detail coming out. The funny thing is I wrote 309 on my copy and I just kept numbering after that.
BY MR. THOMAS:
Q This is an e-mail chain between you and Mr. Bouchet in April 2015, correct?
A Yes.
Q And there -- if you look at the bottom e-mail, it's an e-mail from Mr. Bouchet to you April 10th, 2015, at 7:37 a.m.
Do you see where I'm at?
A Yes.
Q And we're going to go to the next page.

I, the undersigned, a Certified Shorthand Reporter of the State of California, do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that any witnesses in the foregoing proceedings, prior to testifying, were duly sworn; that a record of the proceedings was made by me using machine shorthand, which was thereafter transcribed under my direction; further, that the foregoing is a true record of the testimony given.

I further certify I am neither financially interested in the action nor a relative or employee of any attorney or party to this action.

IN WITNESS WHEREOF, I have this date subscribed my name.

Dated: _____

_____
ASHLEY SOEVYN
CSR No. 12019

Exhibit F

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

---oOo---

SIMPSON STRONG-TIE COMPANY INC.,

Plaintiff,

vs. No. 3:18-cv-01188-WHO

OZ-POST INTERNATIONAL, LLC dba OZCO BUILDING PRODUCTS,

Defendants.
_____/

VIDEOTAPED DEPOSITION OF SOKHO YIM

SAN FRANCISCO, CALIFORNIA

WEDNESDAY, FEBRUARY 27, 2019

BY: ANDREA M. IGNACIO, CSR, RPR, CRR, CCRR, CLR ~

CSR LICENSE NO. 9830

JOB NO. 22998

Page 30

family of the SDWS.
Q So before the hex-head washer, you did not have a 3½ or a 5½ length of screw?
A No, we did not have that.
Q That length of screw was manufactured specifically for the hex-head washer; correct?
A That is correct, yes.
Q Were there any -- aside from modifying the length of the screw -- well, strike that.
Why was the screw length modified for the hex-head washer?
A I believe 3½ inches accommodate the 2-by side member into the -- the main member, so to get the -- the -- enough penetration into the main member. So 5½-inch-long screws accommodate, yeah, the bigger 4-by-4 or 6-by-6, bigger member connections. So it depends on the -- the size of the base material.
Q Well, let me ask you this: So when you -- when you screw in that hex head -- or strike that.
When you screw in the structural wood screw, you want a certain amount of threading that actually goes into the wood to hold the wood together; correct?
A That's correct, yes.
Q And the hex head had an additional -- you had to add additional length to the -- to the screw to

Page 31

accommodate for the -- the width of the hex head?
A That's correct, yes.
Q So you added an additional half inch so that there would still be enough -- I'm going to call it grip into the wood. The threading would still go into the wood, but still accommodate that nut --
A Yes.
Q -- correct?
A Yes.
Q Aside from the length, were there any other modifications made to the structural wood screw that you can recall?
And it -- it's not a test. I've got some other documents we can --
A Sure.
This is the same family of SDWS having 3 -- 3½- and 5½-inch. The diameter -- head diameter or the shank diameter, they are all same, except the thread length is different than the -- any other length, compared to 3-inch thread lengths. 3-inch-long thread lengths different than 3½-inch thread lengths. We make the longer thread lengths to get more engagement.
Q So you extended the thread length for the structural wood screw that was designed to work with the hex-head washer?

Page 32

A That's correct, yes.
Q Aside from extending the length of the screw, and extending the thread length, can you recall any other modifications that were made to the structural wood screw, to adapt it for use with the hex-head washer?
A There's no -- no additional modification on that screws.
Q Periodically, I might try to pause to let the court reporter catch up a little bit.
What about the coating of the screw?
Was there any special coating for the screw that was supposed to be used with the hex-head washer?
MS. MINOR: And just to -- for a clean record, it's coating, C-O-A-T-I-N-G.
THE WITNESS: Coating, C-O-A-T-I-N-G.
MS. MINOR: Yes.
MR. THOMAS: Yes.
MS. MINOR: The coating.
MR. THOMAS: Coating. I apologize.
MS. MINOR: No.
MR. THOMAS: My Texas accent is coming out.
MS. MINOR: We were talking about codes before. I just wanted the record to be clear.
MR. THOMAS: I might throw a "y'all" in here

Page 33

in a minute.
THE WITNESS: Well, it's just the decorative purpose. We just wanted to have a black powder coated.
MR. THOMAS: Q. You -- did the structural wood screw have a black powder coating before the hex-head nut?
A No. The additional two lengths that we developed for the Outdoor Accents, we pursued to have that black coating to accommodate the hex washer head, to make it blended together.
Q To make it look like one piece?
A That's correct, yeah.
Q So the -- your understanding is, the nut and the screw together is designed to look like one piece when it's in use?
MS. MINOR: Objection; vague and ambiguous.
MR. THOMAS: Q. Do you understand the question?
A Would you repeat that again, please.
Q Sure.
The -- your understanding is that, when the hex-head nut and the screw are put together and they're used together, they're supposed to look -- they're designed to look as like they're one piece;

CERTIFICATE OF REPORTER

I, ANDREA M. IGNACIO, hereby certify that the witness in the foregoing deposition was by me duly sworn to tell the truth, the whole truth, and nothing but the truth in the within-entitled cause;

That said deposition was taken in shorthand by me, a disinterested person, at the time and place therein stated, and that the testimony of the said witness was thereafter reduced to typewriting, by computer, under my direction and supervision;

That before completion of the deposition, review of the transcript [ ] was [x] was not requested. If requested, any changes made by the deponent (and provided to the reporter) during the period allowed are appended hereto.

I further certify that I am not of counsel or attorney for either or any of the parties to the said deposition, nor in any way interested in the event of this cause, and that I am not related to any of the parties thereto.

Dated:

_____

ANDREA M. IGNACIO, RPR, CRR, CCRR, CLR, CSR No. 9830

Exhibit G

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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

SIMPSON STRONG-TIE COMPANY, INC. PLAINTIFF, V. OZ-POST INTERNATIONAL LLC dba OZCO BUILDING PRODUCTS, DEFENDANT.	CASE NO: 3:18-cv-01188-WHO **DEFENDANT'S SECOND AMENDED ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS** **DEMAND FOR JURY TRIAL** Judge: William Orrick III

Defendant/Counterclaimant, Oz-Post International LLC d/b/a Ozco Building Products ("OZCO") provides the following Second Amended Asserted Claims and Infringement Contentions, which replaces its original Patent Rule 3-1 Disclosure of Asserted Claims and Infringement Contentions, which were timely served on September 25, 2018, and supplemented on October 12, 2018 and January 8, 2019 as to Plaintiff, Simpson Strong-Tie Company, Inc. ("Simpson"). OZCO's asserted claims and infringement contentions are substantively unchanged from its original asserted claims and infringement contentions with the exception of Section D and Exhibit B.

This First Amended Asserted Claims and Infringement Contentions is based on available information, including publicly available information published by Simpson on their accused products/methods and publicly available statements and information published by others describing Simpson's accused products/methods. Where public information on the operation of Simpson's products/methods was not available, OZCO has relied on its good faith belief as to the likely operation based on its analysis of available information. Thus, OZCO reserves the right to amend its disclosures upon receiving discovery from Simpson.

A. EACH CLAIM OF EACH PATENT IN SUIT THAT IS ALLEGEDLY INFRINGED BY SIMPSON

OZCO alleges that Simpson has infringed and continues infringe the single claim of U.S. Patent No. D798,701 ("the '701 Patent") and Claims 1-5 and 7 of U.S. Patent No. 9,957,998 ("the '998 Patent"). OZCO alleges that each Asserted Claim is infringed by Simpson under 35 U.S.C. § 271(a).

B. THE IDENTITY OF SIMPSON'S ACCUSED INSTRUMENTALITY

The Accused Instrumentality is the Outdoor Accents Hex Head Washer and Structural Wood Screw, including all versions made, imported, offered for sale, used or sold in the United States on or after October 3, 2017 with respect to the '701 Patent and May 1, 2018 with respect to the '998 Patent.

C. CHART IDENTIFYING WHERE EACH ELEMENT OF EACH ASSERTED CLAIM IS FOUND WITHIN EACH ACCUSED INSTRUMENTALITY

Attached as Exhibits A and B are claim charts identifying where each element of each Asserted Claim is found within the Accused Instrumentality for the '998 Patent and the '701 Patent respectively, as required under Patent Rule 3-1(c).

D. IDENTIFICATION AND DESCRIPTION OF THE ACTS OF THE ALLEGED INDIRECT INFRINGER THAT CONTRIBUTE TO OR ARE INDUCING DIRECT INFRINGEMENT

Consistent with its previous disclosure, OZCO provides this explanation of its claim for indirect infringement. OZCO understands that Simpson objects to OZCO's inclusion of indirect infringement in these infringement contentions. Nevertheless, OZCO maintains this explanation of its indirect infringement so that Simpson has full and accurate notice of OZCO's infringement contentions early in the discovery process so that Simpson has an opportunity to take discovery regarding this infringement contention.

Any user that uses the Hex Head Washer and Structural Wood Screw together directly infringes the '998 and '701 Patents as shown in Exhibits A and B respectively. Such users include: Simpson; Jamie Schmitt, a general contractor based in San Francisco, California; Jen Woodhouse, a do-it-yourself blogger and carpenter based in Nashville, Tennessee; other general contractors using the combined Hex Head Washer and Structural Wood Screw; and any customers who purchase and use the combined Hex Head Washer and Structural Wood Screw.

Simpson indirectly infringes the Asserted Claims of the '998 Patent under 35 U.S.C. § 271(b) by knowingly taking affirmative acts through promotion of its combined Hex Head Washer and Structural Wood Screw to encourage the direct infringement by its customers and end-users who use Simpson's combined Hex Head Washer and Structural Wood Screw as decorative fastening hardware, and thereby

make and use an apparatus that satisfies all of the elements of each of the Asserted Claims of the '998 Patent.

Simpson indirectly infringes the Asserted Claims of the '998 Patent under 35 U.S.C. § 271(c) by offering to sell and selling its Hex Head Washer and Structural Wood Screw knowing same to be especially made or especially adapted to be combined to infringe each of the Asserted Claims of the '998 Patent. Simpson's Hex Head Washer is not a staple article or commodity of commerce suitable for substantial noninfringing use.

Simpson indirectly infringes the single claim of the '701 Patent under 35 U.S.C. § 271(b) by knowingly taking affirmative acts through promotion of its combined Hex Head Washer and Structural Wood Screw to encourage the direct infringement by its customers and end-users who use Simpson's combined Hex Head Washer and Structural Wood Screw as decorative fastening hardware, and thereby make and use the ornamental design for simulated bolted hardware claimed by the '701 Patent.

Simpson indirectly infringes the Asserted Claims of the '701 Patent under 35 U.S.C. § 271(c) by offering to sell and selling its Hex Head Washer and Structural Wood Screw knowing same to be especially made or especially adapted to infringe the ornamental design for simulated bolted hardware claimed by the '701 Patent. Simpson's Hex Head Washer is not a staple article or commodity of commerce suitable for substantial noninfringing use.

Simpson is liable as an indirect infringer for promoting, offering for sale, and selling its Hex Head Washer and Structural Wood Screw for the direct infringement of the '998 and '701 Patents by end-user Jamie Schmitt, a general contractor based in San Francisco, California. Mr. Schmitt has used and/or uses Simpson's combined Hex Head Washer and Structural Wood Screw in building outdoor construction projects. To the extent Mr. Schmitt is an agent of Simpson, Simpson is liable for direct infringement by its agent. To the extent Mr. Schmitt has used and/or uses Simpson's combined Hex Head Washer and Structural Wood Screw in a capacity other than as an agent of Simpson, he directly infringes the '998 and '701 Patents.

Simpson is liable as an indirect infringer for promoting, offering for sale, and selling its Hex Head Washer and Structural Wood Screw for the direct infringement of the '998 and '701 Patents by

end-user Jen Woodhouse, a do-it-yourself blogger and carpenter based in Nashville, Tennessee. Ms. Woodhouse has used and/or uses Simpson's combined Hex Head Washer and Structural Wood Screw in building outdoor construction projects. To the extent Ms. Woodhouse is an agent of Simpson, Simpson is liable for direct infringement by its agent. To the extent Ms. Woodhouse has used and/or uses Simpson's combined Hex Head Washer and Structural Wood Screw in a capacity other than as an agent of Simpson, she directly infringes the '998 and '701 Patents.

E. WHETHER EACH ELEMENT OF EACH ASSERTED CLAIM IS CLAIMED TO BE LITERALLY PRESENT OR PRESENT UNDER THE DOCTRINE OF EQUIVALENTS IN THE ACCUSED INSTRUMENTALITY

OZCO claims that each element of each asserted claim is present literally in the Accused Instrumentalities unless expressly noted in the claim chart attached hereto. To the extent any claim construction results in the Accused Instrumentalities falling outside the literal scope of any asserted claim, OZCO reserves the right to contend that the Accused Instrumentalities still infringe under the doctrine of equivalents. Once the Court construes the claims at issue, OZCO will designate which of such claims are infringed under the doctrine of equivalents.

F. PRIORITY DATE OF EACH ASSERTED CLAIM

OZCO alleges that the Asserted Claim of the '701 Patent is entitled to claim priority to U.S. Patent Application Serial No. 13/918,227 filed June 14, 2013, and each Asserted Claim of the '998 Patent is entitled to claim priority U.S. Provisional Application for Patent No. 61/660,419 filed on June 15, 2012.

G. FOR EACH ASSERTED CLAIM, IDENTIFICATION OF ANY PRODUCT/METHOD ON WHICH OZCO WILL RELY AS PRACTICING THE INVENTION

OZCO alleges that its Hex Cap Nut and fastener, including any and all versions of it, practice each Asserted Claim.

H. TIMING OF THE POINT OF FIRST INFRINGEMENT, START OF CLAIMED DAMAGES AND END OF CLAIMED DAMAGES

OZCO alleges that infringement of the ’701 Patent began on October 3, 2017, and infringement of the ’998 Patent began on May 1, 2018, which are also the start of the claimed damages period for the respective patents. Both infringement and the claimed damages period of the ’701 Patent and the ’998 Patent continue.

I. BASIS FOR WILLFUL INFRINGEMENT

At least as early as the receipt of an invitation to negotiate letter dated January 31, 2018, Simpson knew about the ’701 Patent and knew, should have known, or were willfully blind to the fact that it is infringing the Asserted Claim. At least as early as the filing of Civil Action No. 4:18-cv-319 in the United States District Court for the Eastern District of Texas on May 1, 2018, Simpson knew about the ’998 Patent and knew, should have known, or were willfully blind to the fact that it is infringing the Asserted Claims.

II. DOCUMENT PRODUCTION PURSUANT TO PATENT RULE 3-2

OZCO produced documents pursuant to P.R. 3-2 as follows.

P.R. 3-2(a) Documents: Documents sufficient to show sales prior to the date of application for the patents-in-suit are produced at bates numbers OZCO 000001, OZCO 000535, OZCO 000542-000543; OZCO 000561-000604, OZCO 000733-000820.

P.R. 3-2(b) Documents: Documents sufficient to show conception, reduction to practice, design, and development of the inventions for the patents-in-suit created on or before the date of application are produced at bates numbers OZCO 000514-000523, OZCO 000555-000560.

P.R. 3-2(c) Documents: A copy of the file history of the '701 Patent is produced at bates numbers OZCO 000383-000477, and a copy of the file history of the '998 Patent is produced at bates numbers OZCO 000478-000513, OZCO 000605-000732.

P.R. 3-2(d) Documents: The assignments from the inventor to OZCO are produced at bates number OZCO 000524-000533.

P.R. 3-2(e) Documents: Documents sufficient to show the patent coverage of the Hex Cap Nut and fastener are produced at bates number OZCO 000002-000005.

P.R. 3-2(f) Documents: None.

P.R. 3-2(g) Documents: None.

P.R. 3-2(h) Documents: None.

P.R. 3-2(i) Documents: Documents sufficient to show marking of the Hex Cap Nut and fastener and sales volume, revenue, costs and profits are produced at bates number OZCO 000002-000005, OZCO 000536-000541, OZCO 000553-000554.

P.R. 3-2(j) Documents: None.

OZCO has used its best efforts to identify all responsive P.R. 3-2 documents. However, some documents may have been inadvertently omitted. To the extent such deficiencies are identified, OZCO will supplement its production accordingly.

Dated: January 15, 2019

FOLEY & LARDNER LLP
EILEEN R. RIDLEY
ALAN R. OUELLETTE

/s/ Paul V. Storm
Paul V. Storm

FOLEY GARDERE
PAUL V. STORM *(Admitted Pro Hac Vice)*
J. MICHAEL THOMAS (*Admitted Pro Hac Vice)*

Attorneys for Defendant OZ-POST INTERNATIONAL, LLC dba OZCO BUILDING PRODUCTS

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was served by email on this 15th day of January 2019, on the following:

SHARTSIS FRIESE LLP
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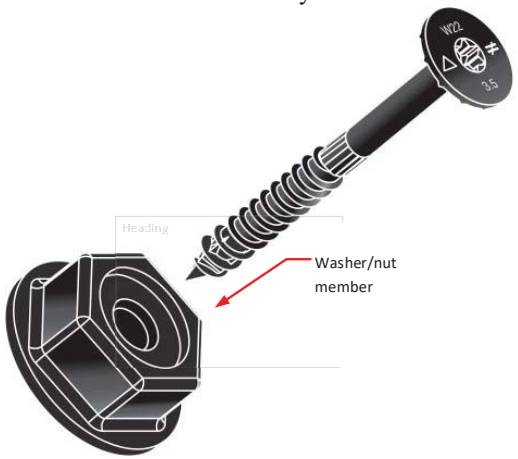
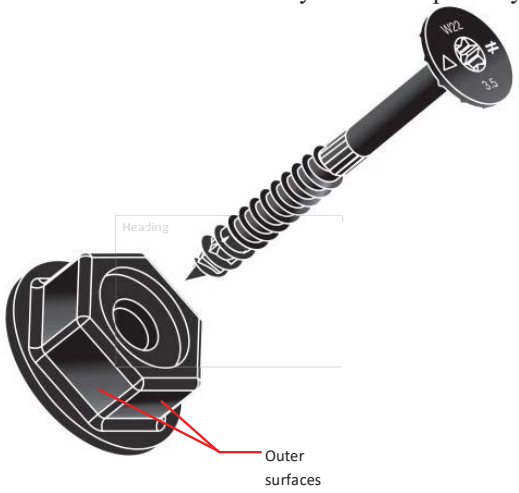
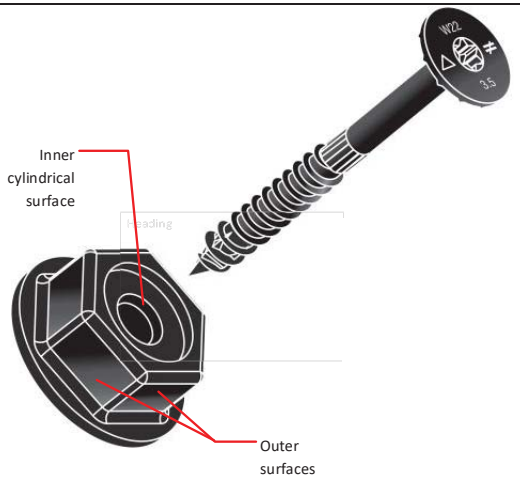
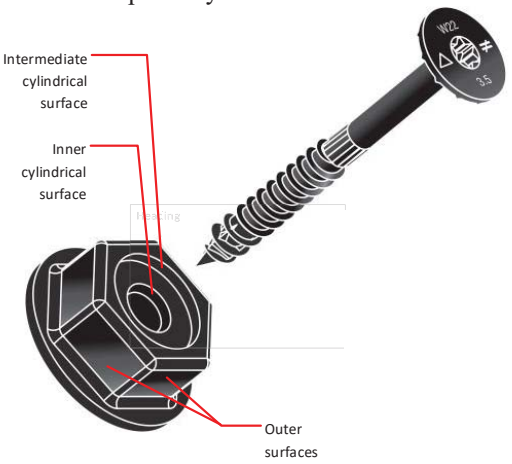
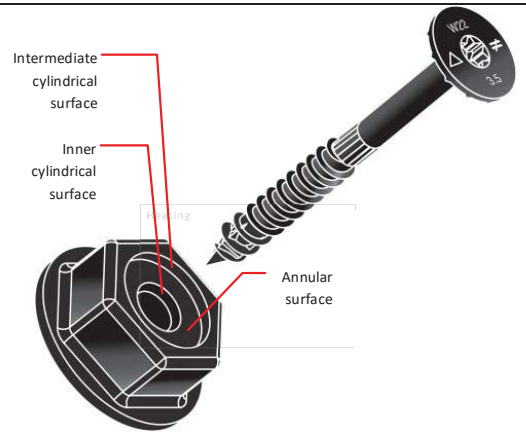
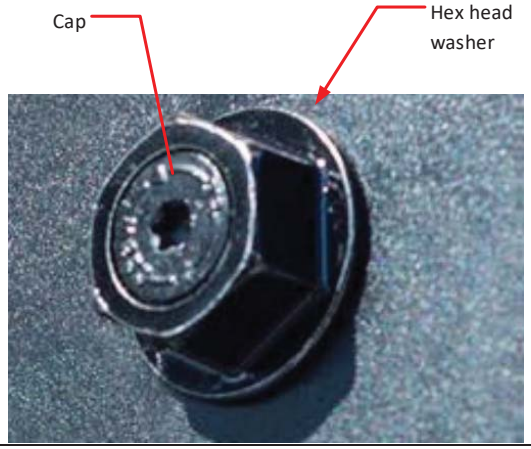
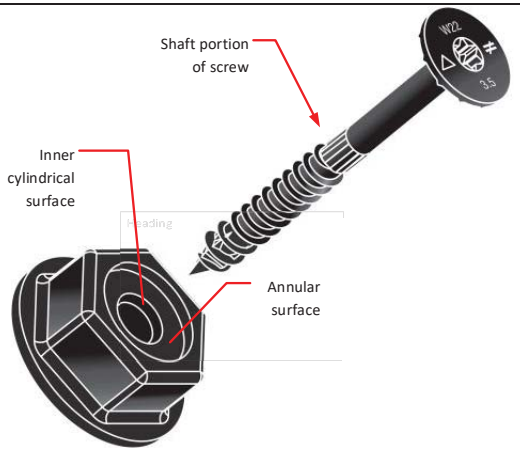
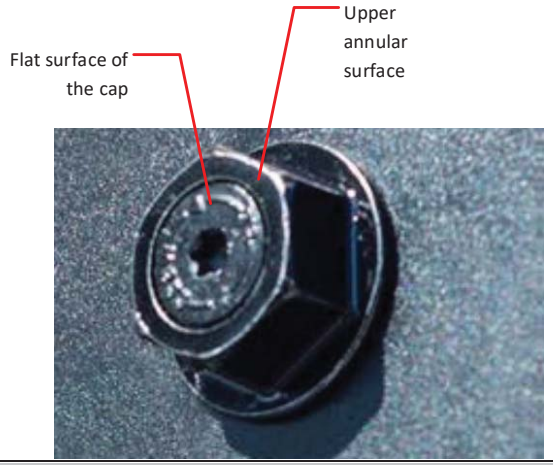
/s/ *Paul V. Storm*
Paul V. Storm

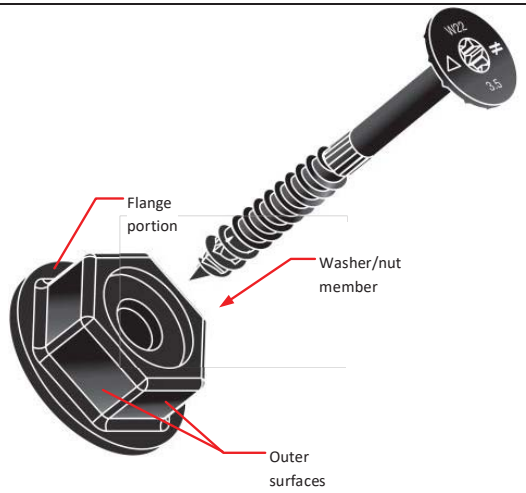
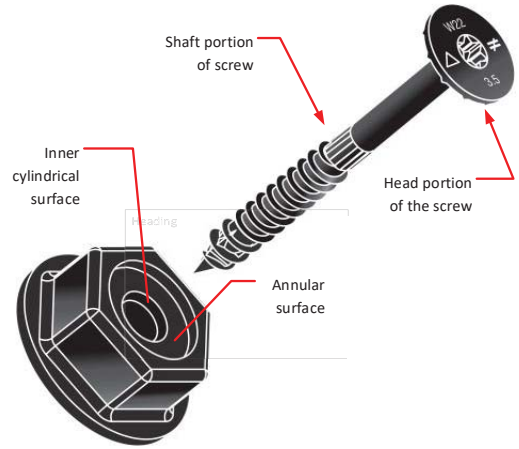
Exhibit A – '998 Patent

Claim 1	
1. An apparatus, comprising:	The Accused Instrumentality is an apparatus.
a washer/nut member comprising:	The Accused Instrumentality includes a washer/nut member. 
a plurality of outer surfaces disposed in a hexagonal shape;	The Accused Instrumentality includes a plurality of outer surfaces disposed in a hexagonal shape. 
an inner cylindrical surface disposed radially internal to the plurality of outer surfaces;	The Accused Instrumentality includes an inner cylindrical surface that is disposed radially internal to the plurality of outer surfaces.

	
an intermediate cylindrical surface disposed radially between the plurality of outer surfaces and the inner cylindrical surface; and	The Accused Instrumentality includes an intermediate cylindrical surface that is disposed radially between the plurality of outer surfaces and the inner cylindrical surface. 
an annular surface disposed radially between the inner cylindrical surface and the intermediate cylindrical surface; and	The Accused Instrumentality includes an annular surface that is disposed radially between the inner cylindrical surface and the intermediate cylindrical surface.

	
a cap disposed within the intermediate cylindrical surface;	The Accused Instrumentality includes a cap that is disposed within the intermediate cylindrical surface when assembled. 
wherein the inner cylindrical surface is configured to surround a shaft portion of a screw that contacts the annular surface; and	The Accused Instrumentality includes an inner cylindrical surface that is configured to surround a shaft portion of a screw that contacts the annular surface.

	
wherein the washer/nut member further comprises an upper annular surface and a flat surface of the cap is substantially flush with the upper annular surface.	An Accused Instrumentality includes an upper annular surface of the washer/nut member that is substantially flush with a flat surface of the cap when assembled. 
Claim 2	
2. The apparatus of claim 1 wherein the washer/nut member further comprises a flange portion disposed radially external to the plurality of outer surfaces.	The Accused Instrumentality includes a washer/nut member with a flange portion that is disposed radially external to the plurality of outer surfaces.

	
Claim 3	
3. The apparatus of claim 1 further comprising the screw wherein the shaft portion of the screw is surrounded by the inner cylindrical surface and a head portion of the screw contacts the annular surface.	The Accused Instrumentality includes the screw, and the shaft portion of the screw is surrounded by the inner cylindrical surface and the head portion of the screw contacts the annular surface when assembled. 
Claim 4	
4. The apparatus of claim 1 wherein the cap includes a tool receiving feature.	The Accused Instrumentality includes a tool receiving feature in the cap.

	
Claim 5	
5. The apparatus of claim 4 wherein the tool receiving feature is an opening.	The Accused Instrumentality include tool receiving feature that is an opening. 
Claim 7	

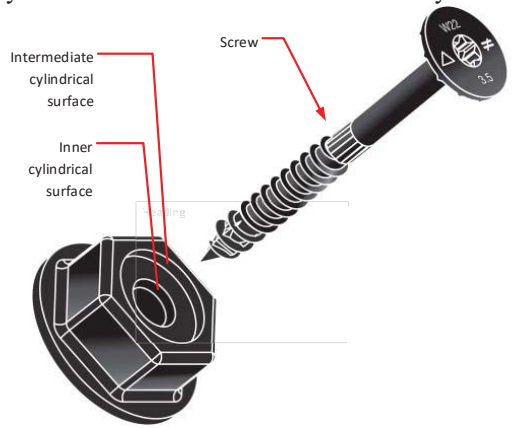
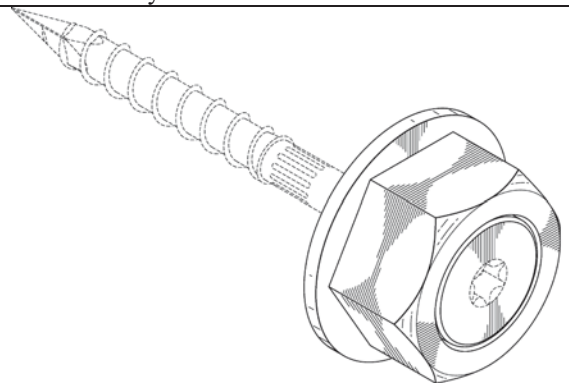
7. The apparatus of claim 5 further comprising the screw received through the inner cylindrical surface and the intermediate cylindrical surface.	The Accused Instrumentality includes the screw, and the screw is received through the inner cylindrical surface and the intermediate cylindrical surface when assembled. 

Exhibit B – '701 Patent

Claim	Accused Instrumentality
1. The ornamental design for simulated bolted hardware, as shown and described.	The Accused Instrumentality is simulated bolted hardware. The Accused Instrumentality is shown below in line drawings and in photographs. The broken lines shown in the line drawings below illustrate nonornamental features of the Accused Instrumentality.
 FIG. 1	  FIG. 1

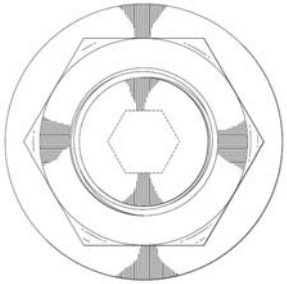
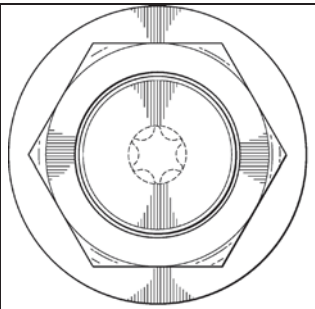


FIG. 2



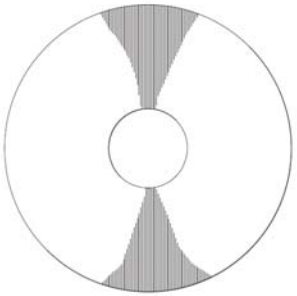
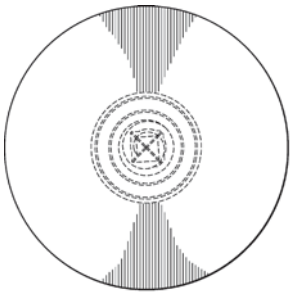
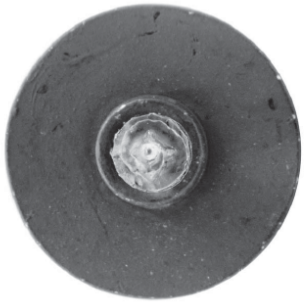


FIG. 3





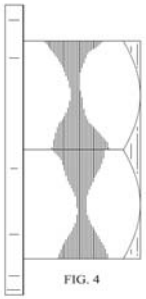


FIG. 4

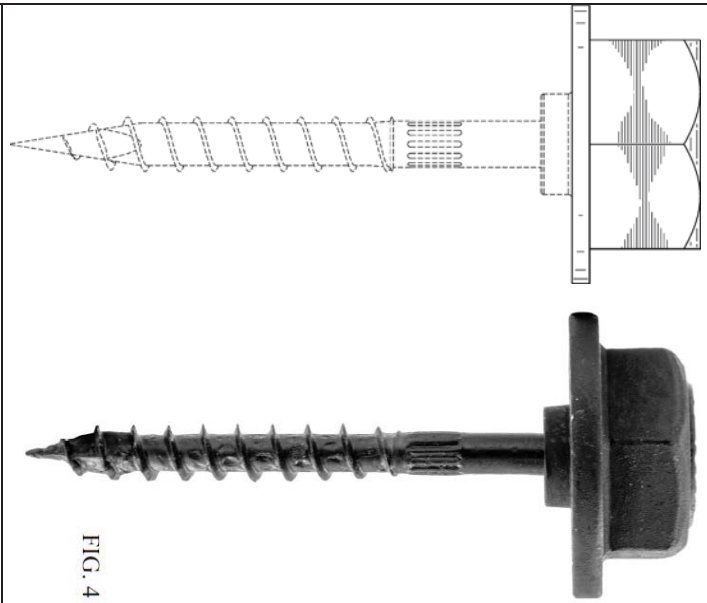


FIG. 4

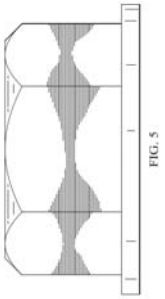


FIG. 5

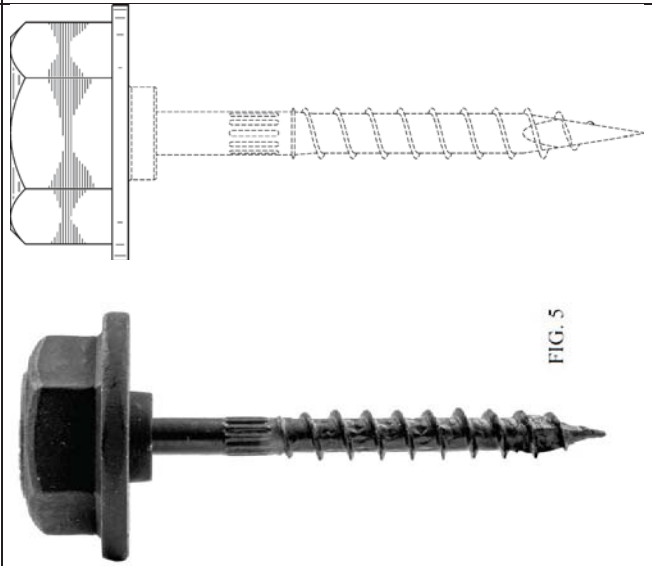


FIG. 5

Exhibit H

US00D733546S

(12) United States Design Patent

Balzhiser

(10) Patent No.: US D733,546 S
(45) Date of Patent: ** Jul. 7, 2015

(54) **SCREW WITH DECORATIVE HEAD**

(71) Applicant: **David E Balzhiser**, Clements, CA (US)

(72) Inventor: **David E Balzhiser**, Clements, CA (US)

(73) Assignee: **Simpson Strong-Tie Company, Inc.**, Pleasanton, CA (US)

(**) Term: **14 Years**

(21) Appl. No.: **29/470,962**

(22) Filed: **Oct. 25, 2013**

(51) **LOC (10) Cl.** **08-08**

(52) **U.S. Cl.**
USPC **D8/387**

(58) **Field of Classification Search**
USPC D8/387, 397; 411/378, 393, 402–403, 411/6, 435, 437, 510, 427, 337, 429, 400
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D418,048	S *	12/1999	Chan	D8/387
D557,131	S *	12/2007	Liu	D8/387
7,402,016	B2 *	7/2008	Yin-Feng	411/413
D581,776	S *	12/2008	Yin-Feng	D8/387
D585,731	S *	2/2009	Carrillo et al.	D8/387
D601,004	S *	9/2009	Hagins	D8/387
D637,071	S *	5/2011	Gaudron et al.	D8/387
8,894,339	B2 *	11/2014	Yin-Feng	411/413
2013/0334389	A1	12/2013	Hill	
2013/0334392	A1	12/2013	Hill	
2013/0336743	A1	12/2013	Hill	

(Continued)

OTHER PUBLICATIONS

"Swan Secure Fasteners"; Simpson Strong-Tie Catalog: C-SSTSWAN09, Jul. 2009. pp. front cover, 19-29, 37-40, 52-53, 62-63, 69-70, 74-82, back cover. USA.

(Continued)

Primary Examiner — Sheryl Lane
(74) *Attorney, Agent, or Firm* — James R. Cypher; Charles R. Cypher

(57) **CLAIM**

The ornamental design for the screw with decorative head, as shown and described.

DESCRIPTION

FIG. **1** is an upper perspective view of the separate washer that forms part of the present invention entitled screw with decorative head;
FIG. **2** is an exploded view of the separate screw and separate decorative washer with a dotted line and arrow head showing how the separate screw is inserted into the decorative washer;
FIG. **3** is an upper perspective view of the separate screw partially inserted into the separate washer;
FIG. **4** is an upper perspective view of the screw with decorative head showing the new design;
FIG. **5** is a top view of the separate washer that forms part of the present invention;
FIG. **6** is a bottom view of the separate washer that forms part of the present invention;
FIG. **7** is a side view of the separate washer that forms part of the present invention;
FIG. **8** is an alternate side view of the separate washer that forms part of the present invention;
FIG. **9** is a top view of the screw with decorative head showing the new design;
FIG. **10** is a bottom view thereof;
FIG. **11** is a side view thereof; and,
FIG. **12** is an alternate side view thereof.
The dotted line with an arrow head of FIG. **2** shows how the separate screw is inserted into the separate washer to form the present invention entitled screw with decorative head and forms no part of the claimed design. Portions of the article shown in broken lines form no part of the claimed design. The broken lines represent portions of the article and form no part of the claimed design.

1 Claim, 3 Drawing Sheets

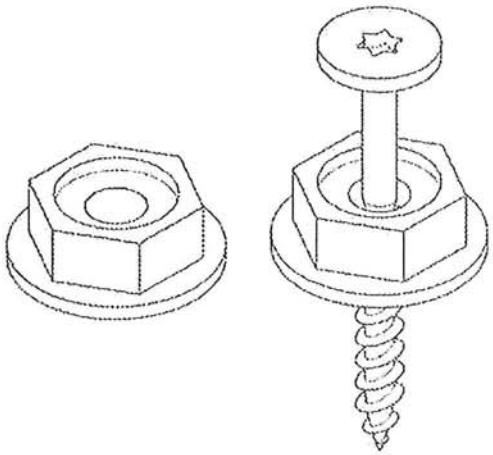


EXHIBIT 5
Bob Bouchet
1/23/19
Ashley Soevyn CSR# 12019

(56) **References Cited**

U.S. PATENT DOCUMENTS

2013/0340375	A1	12/2013	Hill
2014/0007541	A1	1/2014	Hill
2014/0369787	A1	12/2014	Hill

OTHER PUBLICATIONS

"Wood Construction Connectors"; Simpson Strong-Tie Catalog: C-2013, Jan. 1, 2013. pp. front cover, 9, 22, 24-27, 42-45, 128, 163, 176, 184-185, 194, 208, back cover. USA.

"Fastening Systems; Includes Quik Drive Auto-Feed Screw Driving Systems"; Simpson Strong-Tie Catalog: C-FS11, Aug. 2011. pp. front cover, 15-16, 19, 21-22, 24-29, 76-133, 160-162, 166-182, back cover. USA.

"Anchoring and Fastening Systems for Concrete and Masonry"; Simpson Strong-Tie Catalog: C-SAS-2012, Jan. 1, 2012. pp. front cover, 4-5, 8, 95-96, 106-107, 110-111, 122-123, 127-130, 133-134, 146, 157-177, 180-186, 201-214, 242-243, back cover. USA.

* cited by examiner

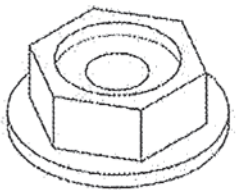


Fig. 1

Fig. 2

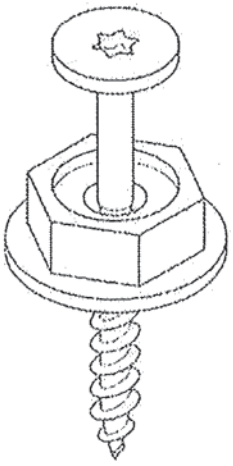


Fig. 3

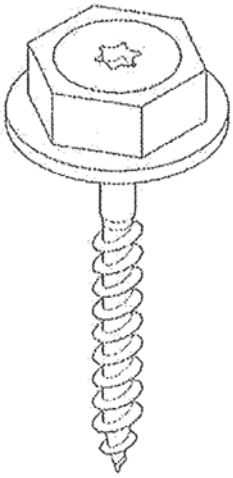


Fig. 4

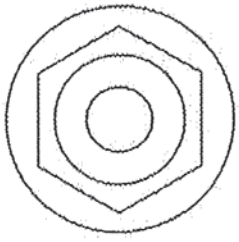


Fig. 5

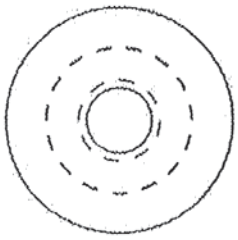


Fig. 6

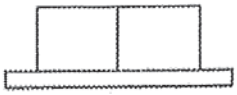


Fig. 7

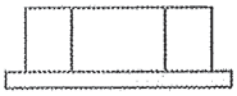


Fig. 8

Fig. 9

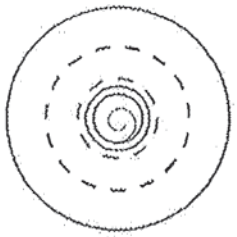


Fig. 10

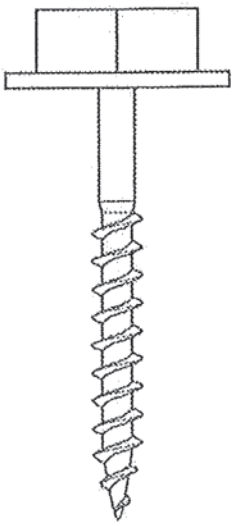


Fig. 11

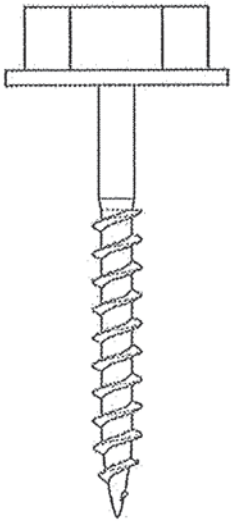


Fig. 12

Exhibit I

US010253801B2

(12) **United States Patent**
Leichti et al.

(10) **Patent No.: US 10,253,801 B2**
(45) **Date of Patent: Apr. 9, 2019**

(54) **WASHER WITH SHEAR TUBE**

(71) Applicants: **Robert J. Leichti**, San Ramon, CA (US); **Jin-Jie Lin**, Livermore, CA (US)

(72) Inventors: **Robert J. Leichti**, San Ramon, CA (US); **Jin-Jie Lin**, Livermore, CA (US)

(73) Assignee: **Simpson Strong-Tie Company Inc.**, Pleasanton, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **15/279,193**

(22) Filed: **Sep. 28, 2016**

(65) **Prior Publication Data**

US 2017/0089385 A1 Mar. 30, 2017

Related U.S. Application Data

(60) Provisional application No. 62/234,425, filed on Sep. 29, 2015.

(51) **Int. Cl.**

F16B 43/00	(2006.01)
F16B 35/00	(2006.01)
E04B 1/24	(2006.01)
F16B 5/02	(2006.01)

(52) **U.S. Cl.**

CPC ***F16B 43/00*** (2013.01); ***E04B 1/2403*** (2013.01); ***F16B 5/02*** (2013.01); ***F16B 35/00*** (2013.01)

(58) **Field of Classification Search**

CPC .. F16B 5/02; F16B 23/00; F16B 35/00; F16B 35/06; F16B 39/24; F16B 43/00; F16B 2043/008; E04B 1/2403

USPC 411/366.1, 368, 371.2, 396, 398, 531, 411/533; 52/688

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

156,699	A	11/1874	Fuller
937,199	A	10/1909	Willard
970,423	A	9/1910	Cunningham
1,044,055	A	11/1912	Johnson et al.
1,301,302	A	4/1919	Nolan
1,640,650	A	8/1927	Ehrhardt

(Continued)

FOREIGN PATENT DOCUMENTS

EP	2246578	A1	3/2010
EP	2226440	A2	3/2011

(Continued)

OTHER PUBLICATIONS

International Search Report and Written Opinion of the International Searching Authority, Application No. PCT/US2016/054219, dated Jan. 3, 2017, 11 pages, European Patent Office, Rijswijk, NL.

(Continued)

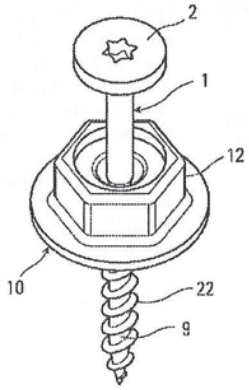
Primary Examiner — Roberta S Delisle

(74) *Attorney, Agent, or Firm* — James R. Cyher; Charles R. Cypher

(57) **ABSTRACT**

A fastener system is provided that attaches a connector or other upper member to a lower structural member such as a post or beam. The improved fastener consists of a fastener having an extending shank that is driven into a lower structural member and the fastener is received by a washer that also has an extending tube, and the extending tube of the washer is received by the connector or upper member and is also, preferably received in the structural member.

18 Claims, 21 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

1,674,258	A		6/1928	Obergfell et al.
2,111,110	A		3/1938	Deniston, Jr. et al.
3,156,281	A		11/1964	Demi
3,174,383	A	*	3/1965	Heil F16B 23/00 411/39
3,212,387	A		10/1965	Madansky
3,270,610	A		9/1966	Knowlton
3,305,987	A		2/1967	Weaver
3,315,720	A		4/1967	Gutshall
3,852,931	A		12/1974	Morse et al.
4,238,165	A		12/1980	Wagner
4,257,465	A		3/1981	Berg
4,361,997	A	*	12/1982	DeCaro E04D 3/3603 411/161
4,380,413	A	*	4/1983	Dewey F16B 43/02 411/161
4,540,322	A		9/1985	Coffia
4,543,763	A		10/1985	Ernst et al.
4,630,984	A	*	12/1986	Reinwall E04D 3/3603 411/368
4,632,616	A		12/1986	Sidoti
4,884,932	A	*	12/1989	Meyer E04D 3/3603 411/368
4,988,351	A		1/1991	Paulos et al.
5,082,412	A	*	1/1992	Thomas E04D 3/3603 411/368
5,175,665	A		12/1992	Pegg
5,201,627	A		4/1993	Biedenbach
5,217,339	A	*	6/1993	O'Connor E04D 3/3603 411/161
5,628,599	A		5/1997	Eakin
5,711,711	A		1/1998	Schmidt, Jr.
5,779,380	A		7/1998	Knapp
5,908,278	A	*	6/1999	Hasan E04D 5/145 411/368
D418,048	S		12/1999	Chan
6,105,332	A		8/2000	Boyadjian
6,186,698	B1		2/2001	Knapp
6,383,187	B2		5/2002	Törmälä et al.
6,565,303	B1	*	5/2003	Riccitelli E04D 3/3603 411/368
7,004,436	B2		2/2006	Knapp
D549,091	S		8/2007	McIntyre et al.
D557,131	S		12/2007	Liu
7,306,418	B2		12/2007	Kornblum
7,402,016	B2		7/2008	Yin-Feng
D581,776	S		12/2008	Yin-Feng
D585,731	S		2/2009	Carrillo, Sr. et al.
D601,004	S		9/2009	Hagins
D610,717	S		2/2010	Lin
7,784,150	B2	*	8/2010	Anderson B61D 3/18 105/355
7,866,931	B2		1/2011	Murtha
7,877,939	B2		2/2011	Knapp
D637,071	S		5/2011	Gaudron et al.
7,938,608	B1		5/2011	Jordan
8,002,509	B2	*	8/2011	Rosemann F16B 5/02 24/457
D644,921	S		9/2011	Hsu
8,347,566	B2		1/2013	Knapp
D682,666	S		5/2013	Wigboldy
8,454,291	B2		6/2013	Guyomard
D696,930	S		1/2014	Rodenhouse et al.
D696,932	S		1/2014	Rodenhouse et al.
8,894,339	B2		11/2014	Yin-Feng
8,904,719	B2		12/2014	Knapp
9,027,897	B2		5/2015	Hill
D733,546	S		7/2015	Balzhiser
2002/0062617	A1		5/2002	diGirolamo et al.
2006/0067804	A1		3/2006	Kornblum
2007/0036630	A1		2/2007	Butzer et al.
2007/0154258	A1		7/2007	Knapp
2011/0173916	A1		7/2011	Knapp
2013/0334389	A1		12/2013	Hill
2013/0334392	A1		12/2013	Hill
2013/0336743	A1		12/2013	Hill
2013/0340375	A1		12/2013	Hill
2014/0007541	A1		1/2014	Hill
2014/0369787	A1		12/2014	Hill

FOREIGN PATENT DOCUMENTS

EP	2886731	A1	6/2015
EP	2664724	B1	10/2015
FR	2751355		1/1998
JP	2001-12442		1/2001
WO	PCT/GB91/01709		4/1992
WO	WO 96/11311		4/1996
WO	WO 00/18309		4/2000
WO	WO 2007/131166	A2	11/2007
WO	WO 2013/034978	A2	3/2013
WO	WO 2013/092822	A2	6/2013

OTHER PUBLICATIONS

"90° SWG ASSY Cup Washer," Brochure, available as early as Jan. 19, 2016, 3 pages, MyTiCon Timber Connectors, Surrey, Canada.
Closen, Max, "Steel to Wood Connection Systems," Brochure, available as early as Jan. 19, 2016, 6 pages, MyTiCon Timber Connectors, Surrey, Canada.
"45° Wedge Washer," website page, copyright 2011-2016, MyTiCon Timber Connectors, Surrey, Canada.
"Swan Secure Fasteners," Catalog, Jul. 2009, pp. front cover, 19-29, 37-40, 52-53, 62-63, 69-70, 74-82, back cover, C-SSTSWAN09, Simpson Strong-Tie Company, Inc., Pleasanton, USA.
"Wood Construction Connectors," Catalog, Jan. 1, 2013, pp. front cover, 9, 22, 24-27, 42-45, 128, 163, 176, 184-185, 194, 208, back cover, C-2013, Simpson Strong-Tie Company, Inc., Pleasanton, USA.
"Fastening Systems; Includes Quik Drive Auto-Feed Screw Driving Systems," Catalog, Aug. 2011, pp. front cover, 15-16, 19, 21-22, 24-29, 76-133, 160-162, 166-182, back cover, C-FS11, Simpson Strong-Tie Company, Inc., Pleasanton, USA.
"Anchoring and Fastening Systems for Concrete and Masonry," Catalog, Jan. 1, 2012, pp. front cover, 4-5, 8, 95-96, 106-107, 110-111, 122-123, 127-130, 133-134, 146, 157-177, 180-186, 201-214, 242-243, back cover, C-SAS-2012, Simpson Strong-Tie Company, Inc., Pleasanton, USA.
"OZCO 2015 New Product Launch", catalog, 2015, cover and 4 pages, OZCO Building Products, Richardson, Texas.
"OZCO Decorative Structural Wood Connectors", website page, Jan. 4, 2016, 1 page, OZCO Building Products, Richardson, Texas.
"How to choose a wood connector face plate size for exposed beams", website page, Jan. 5, 2016, 3 pages, Old West Iron, Felt, Idaho.
Old West Iron Connectors, web pages, Feb. 15, 2017, 8 pages, Old West Iron, Felt, Idaho.
"Wood to Wood Connector Gallery," web page, Jun. 2012, 2 pages, Old West Iron dba Teton Iron, Tetonia, Idaho.

* cited by examiner

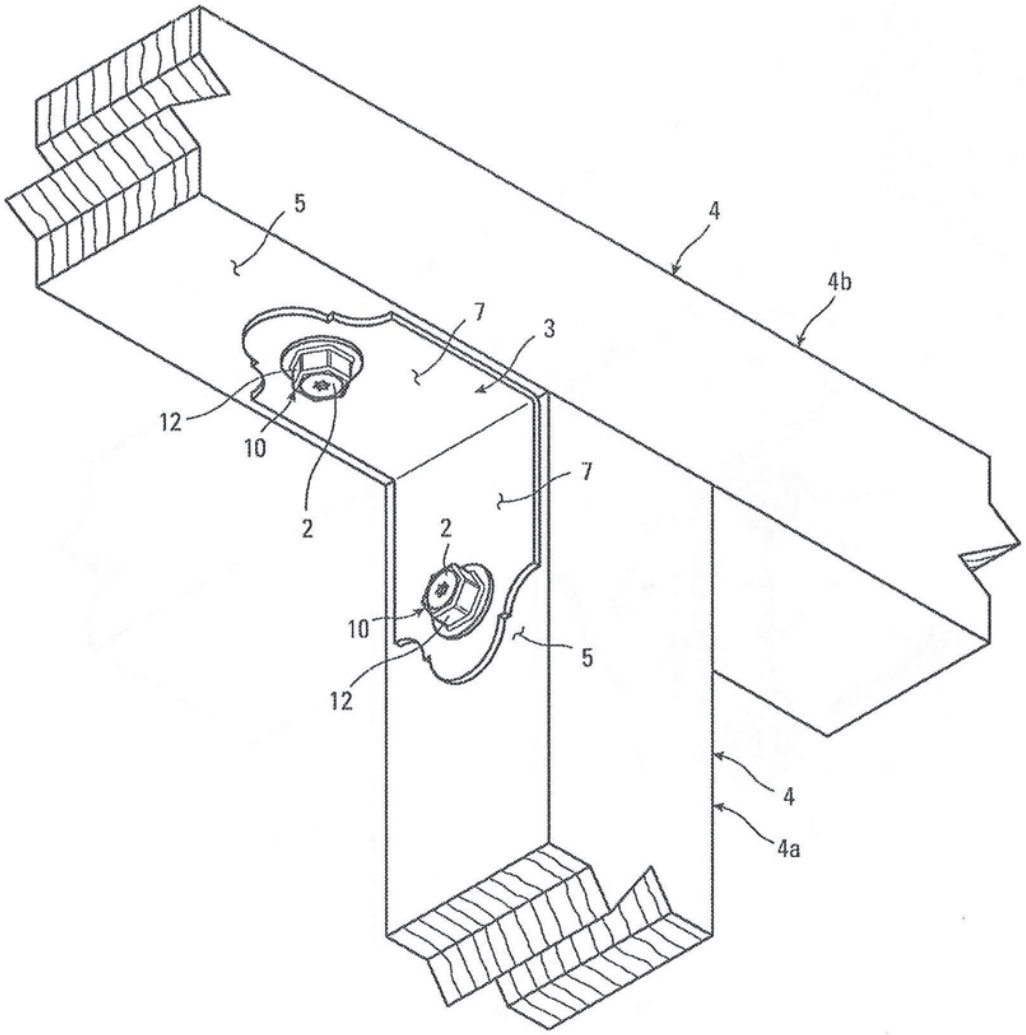


Fig. 1

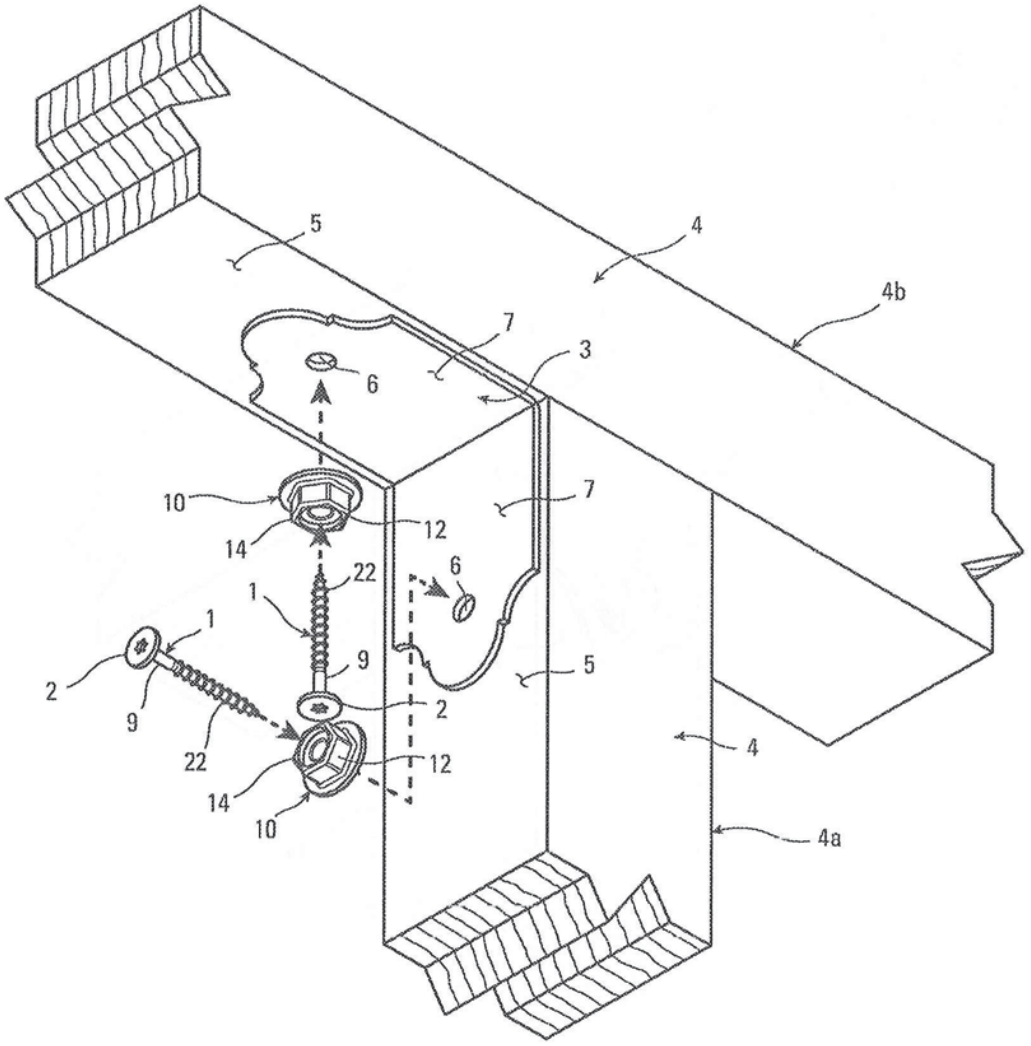


Fig. 2

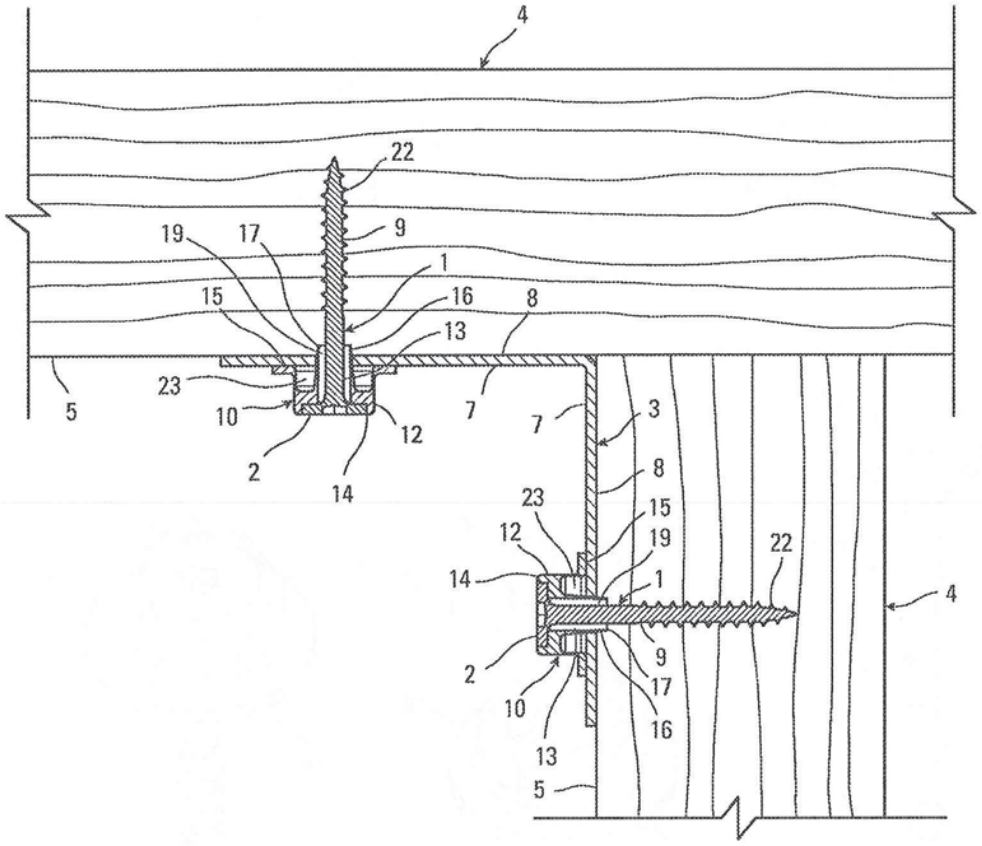

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Fig. 3

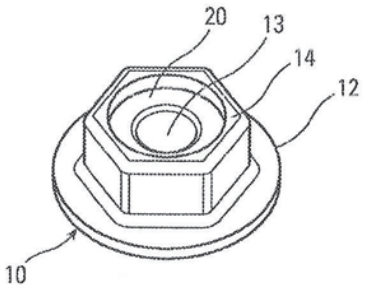
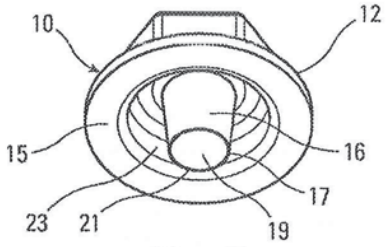


Fig. 4



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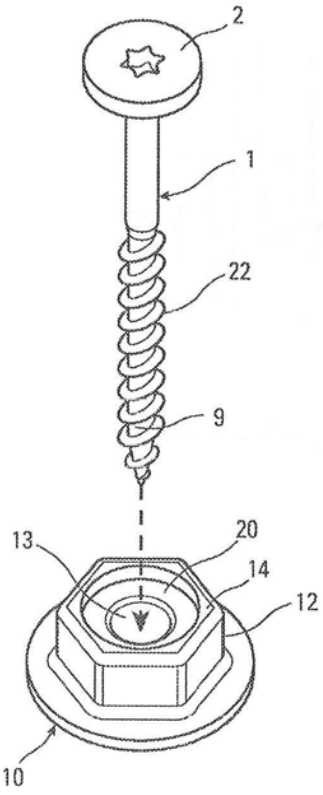


Fig. 6

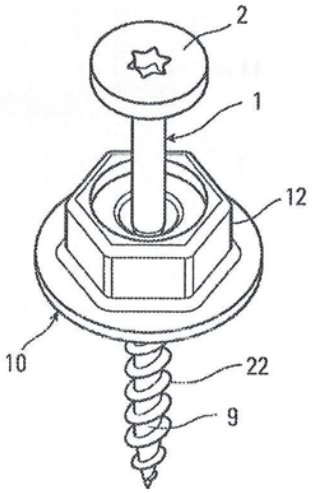


Fig. 7

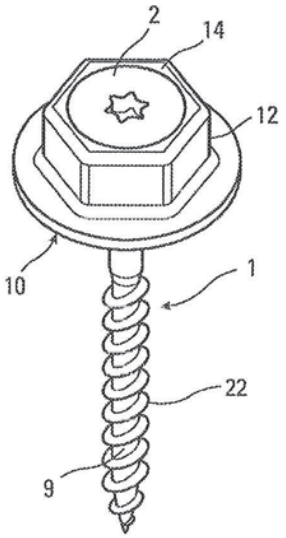


Fig. 8

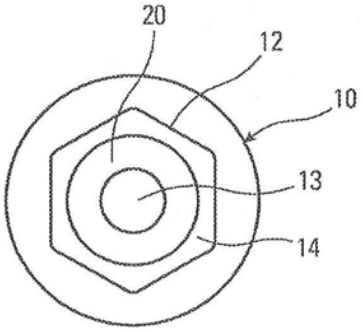


Fig. 9

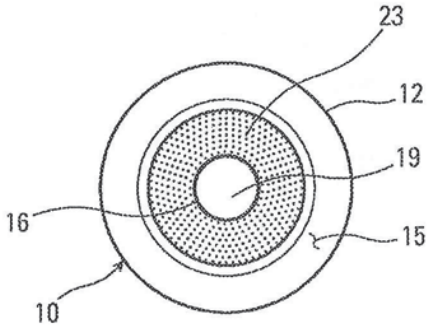


Fig. 10

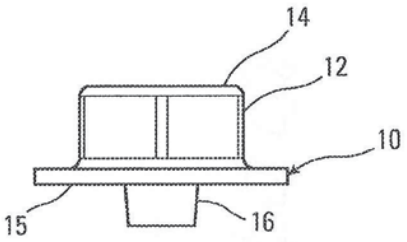


Fig. 11

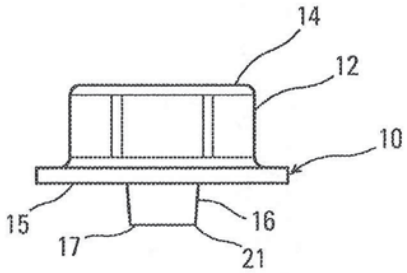


Fig. 12

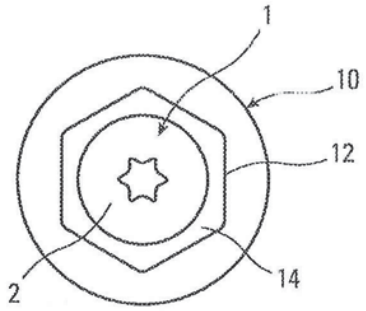


Fig. 13

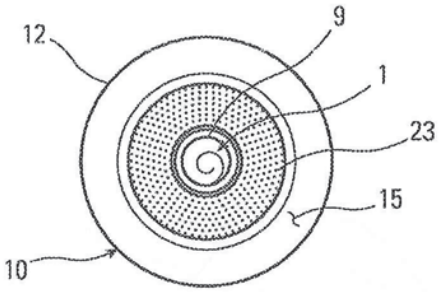


Fig. 14

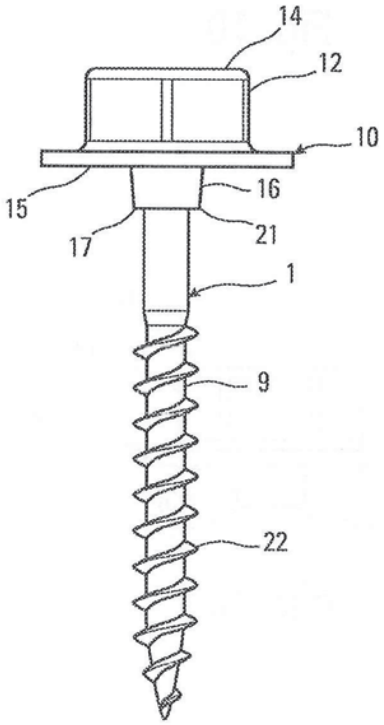


Fig. 15

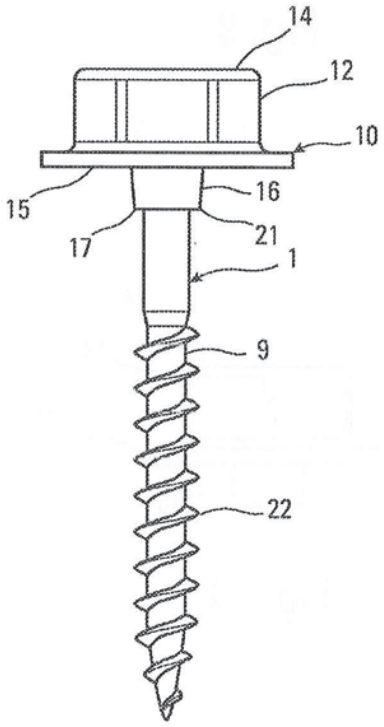


Fig. 16

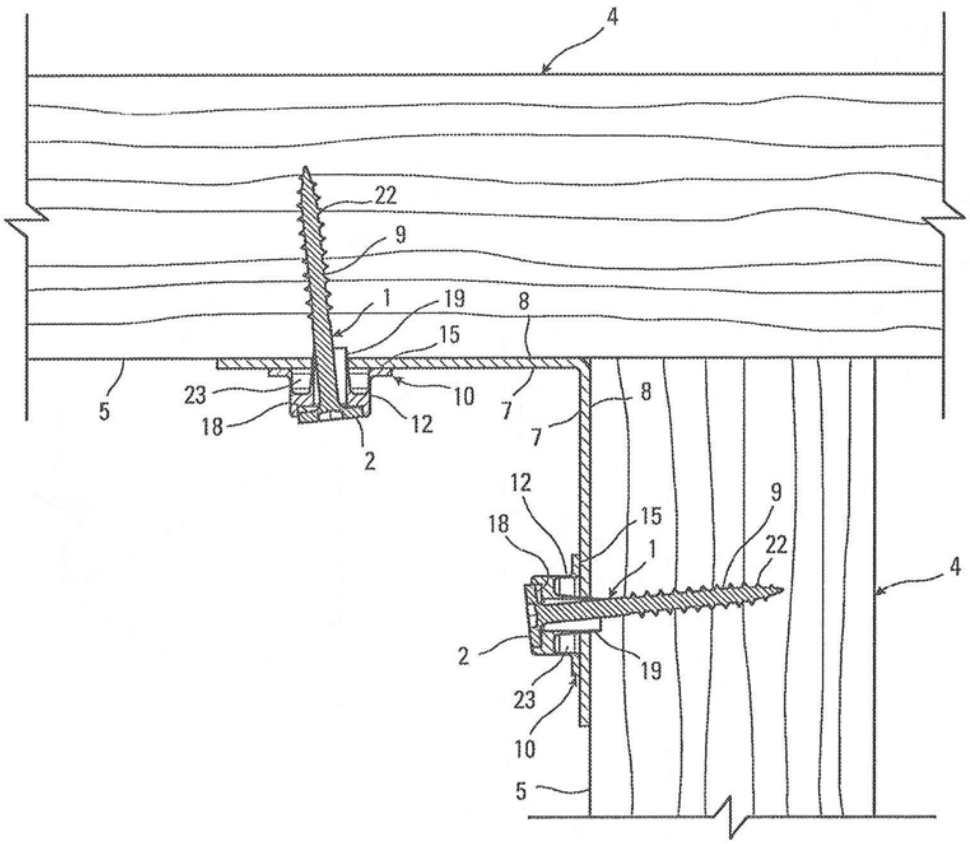


Fig. 17

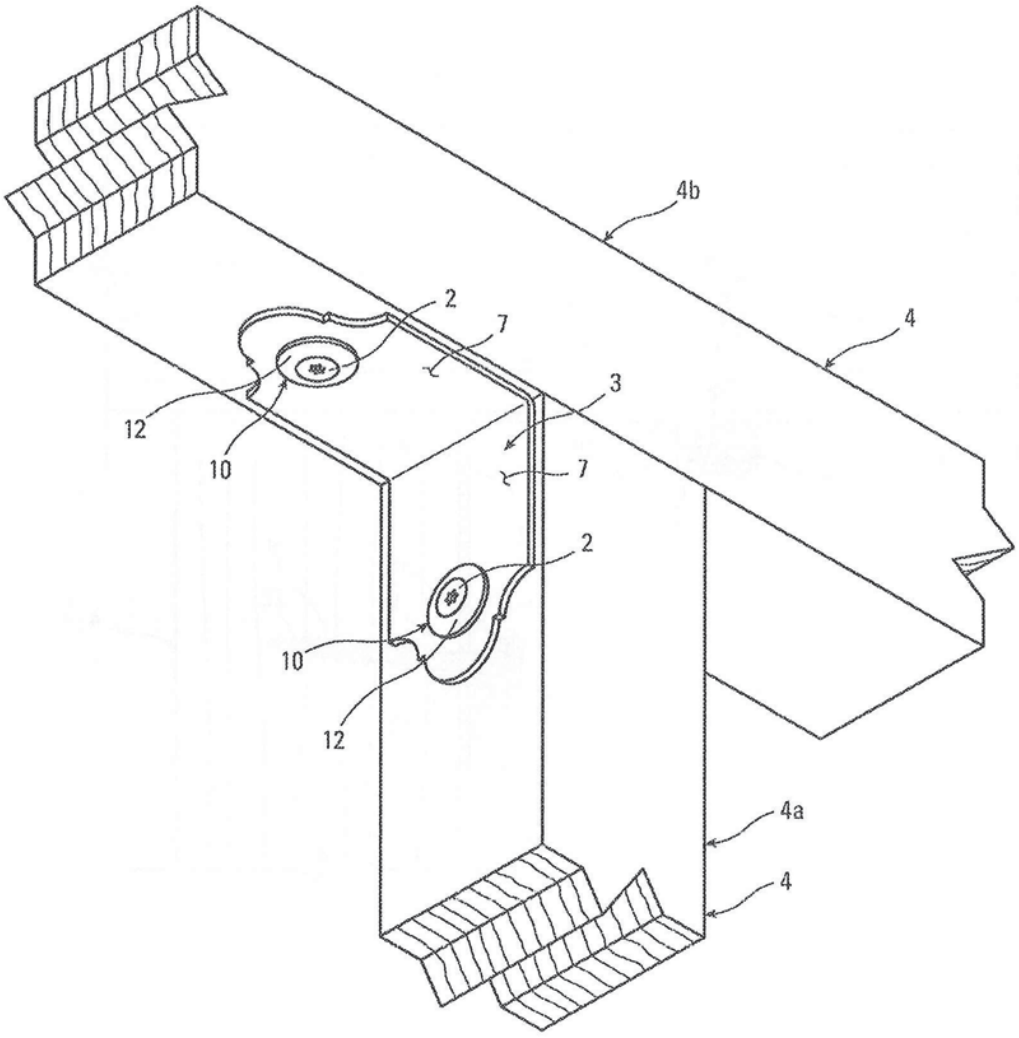


Fig. 18

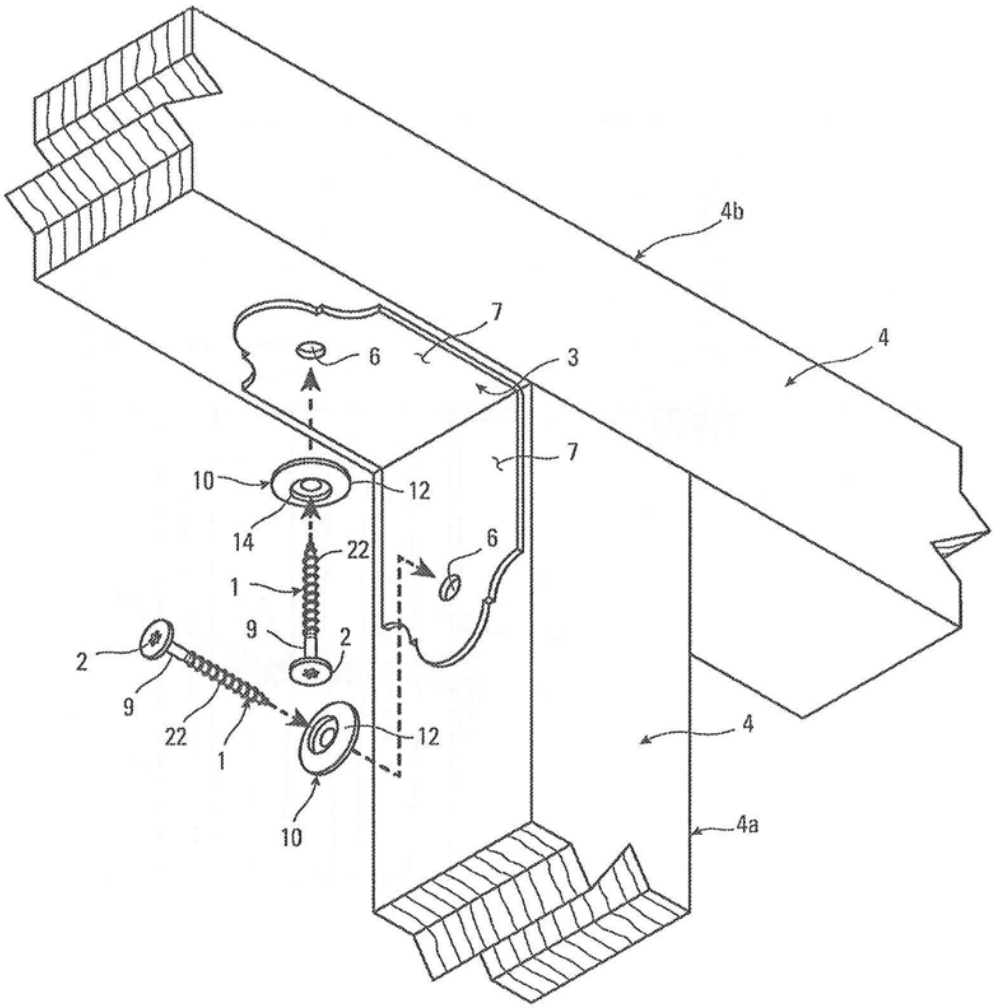


Fig. 19

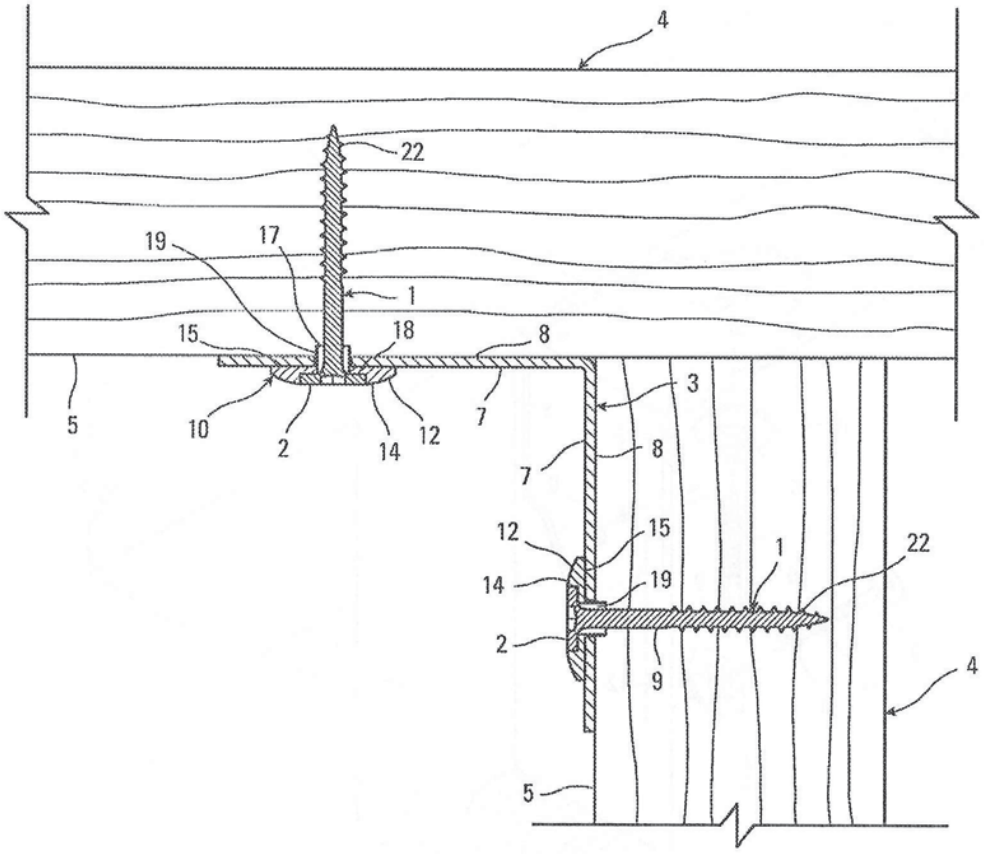


Fig. 20

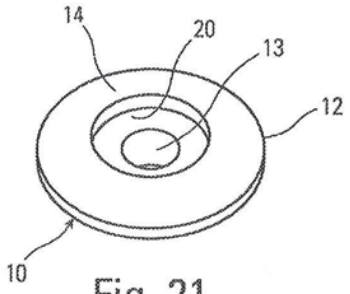


Fig. 21

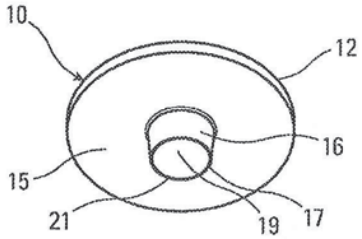


Fig. 22

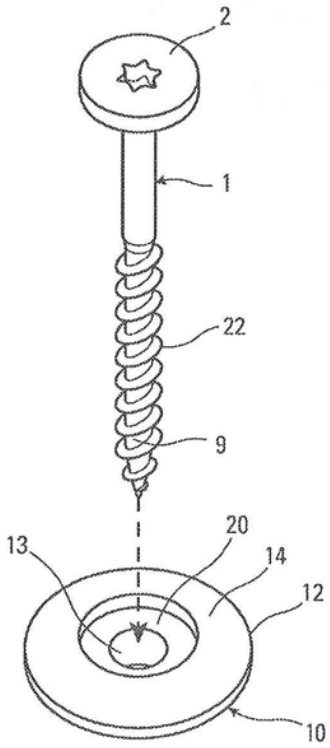
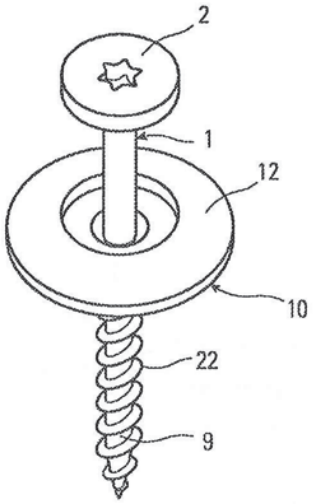


Fig. 23



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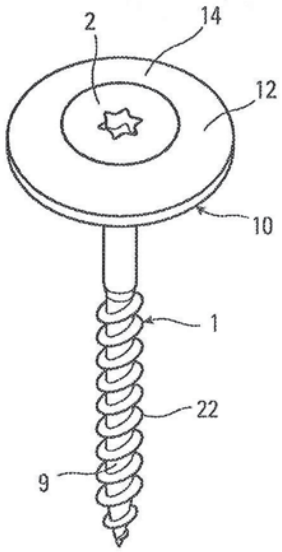

Fig. 25

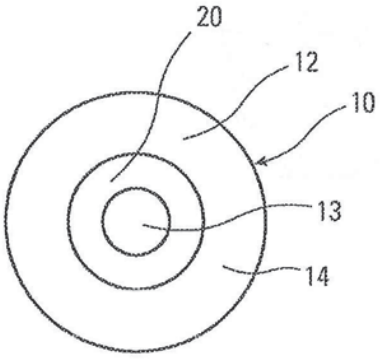

Fig. 26

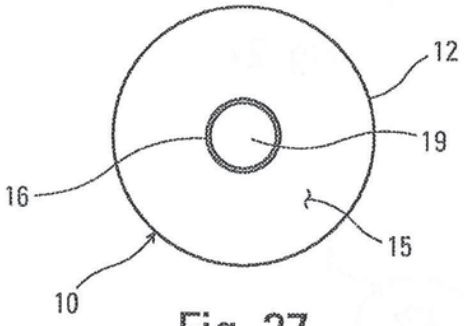

Fig. 27

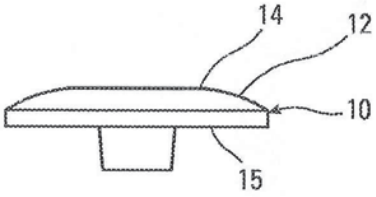

Fig. 28

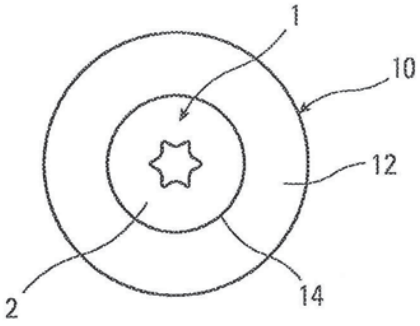

Fig. 29

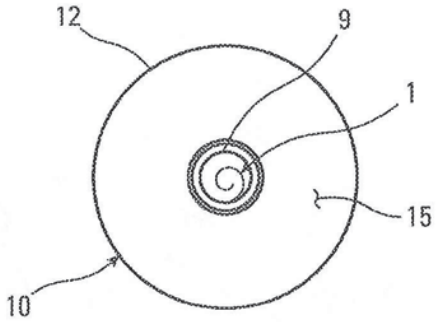

Fig. 30

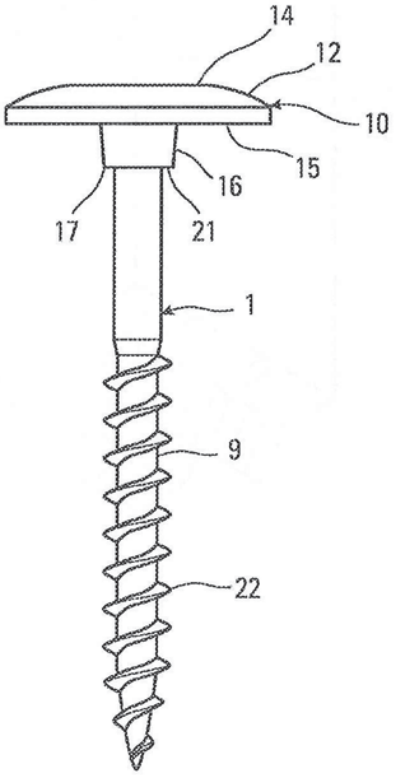

Fig. 31

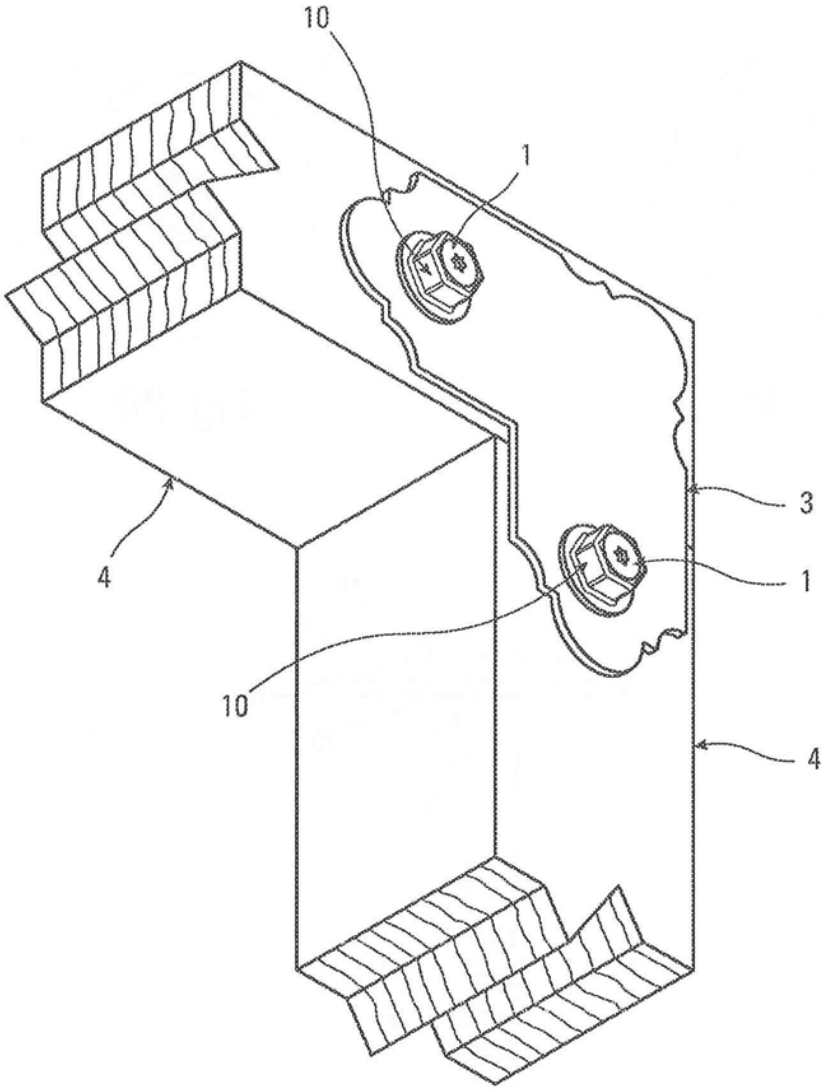

Fig. 32

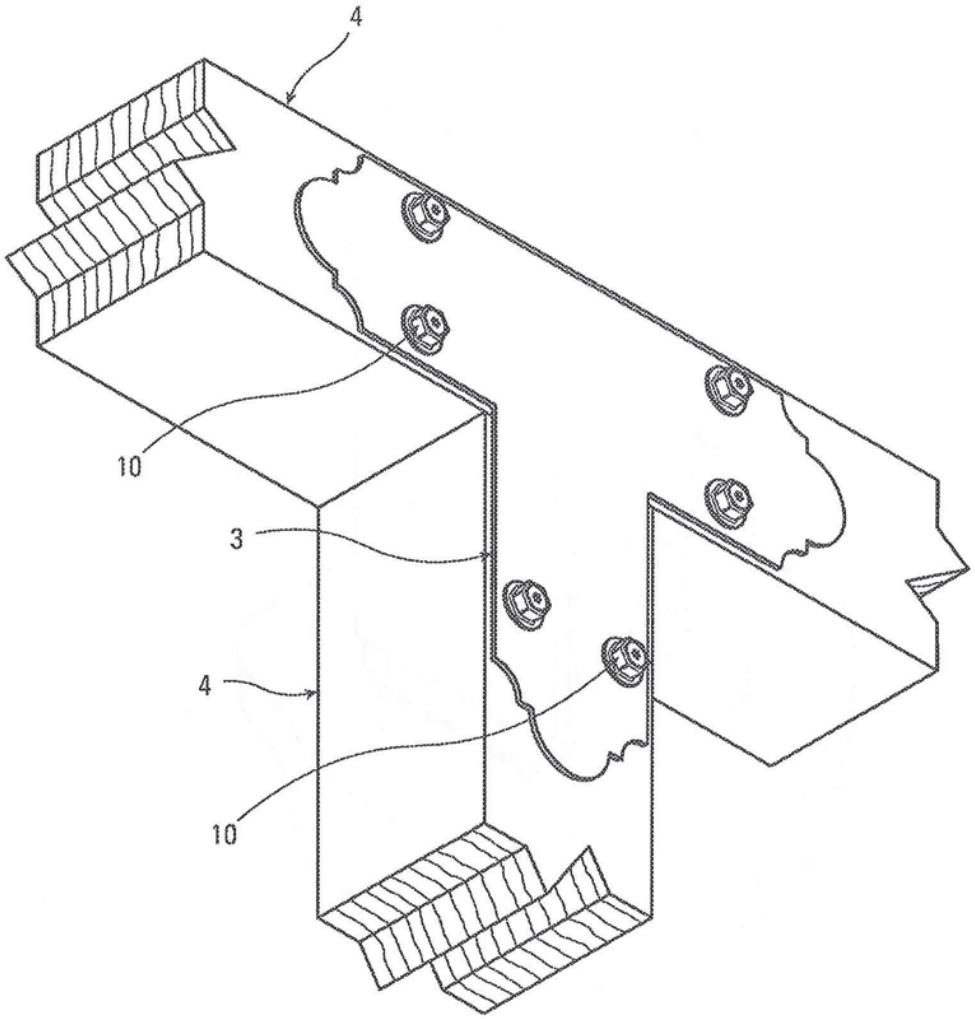

Fig. 33

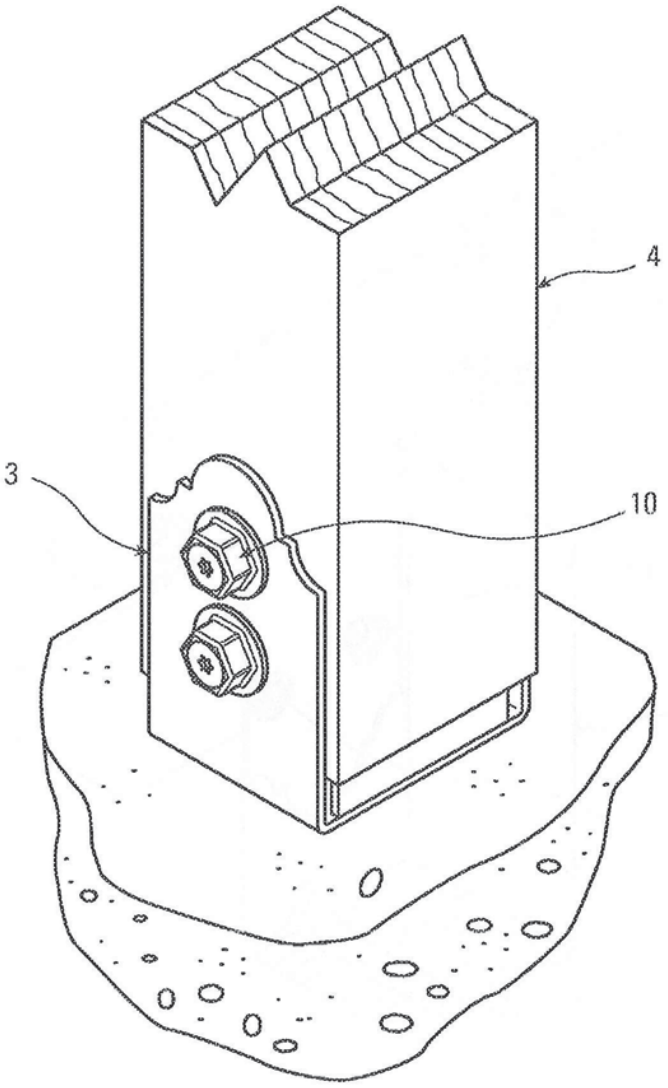

Fig. 34

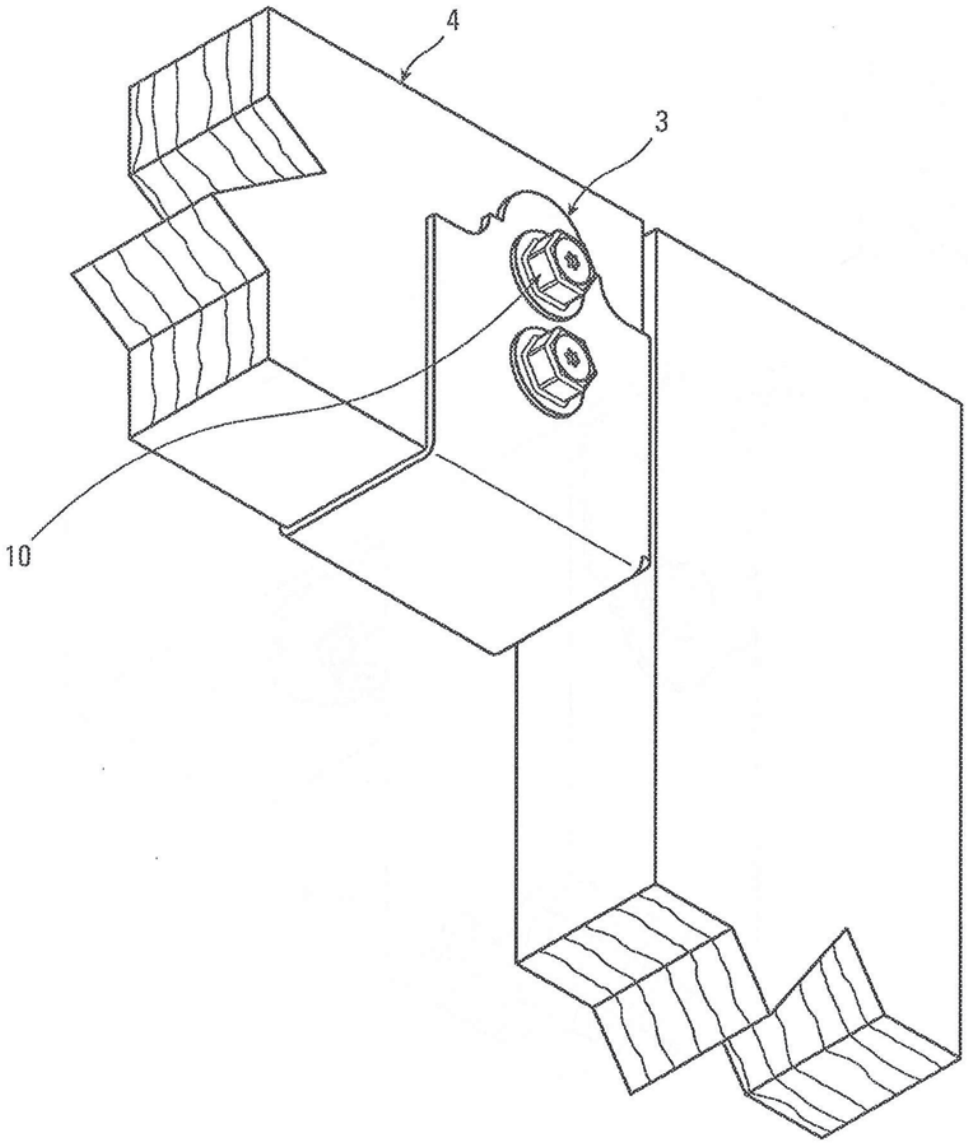

Fig. 35

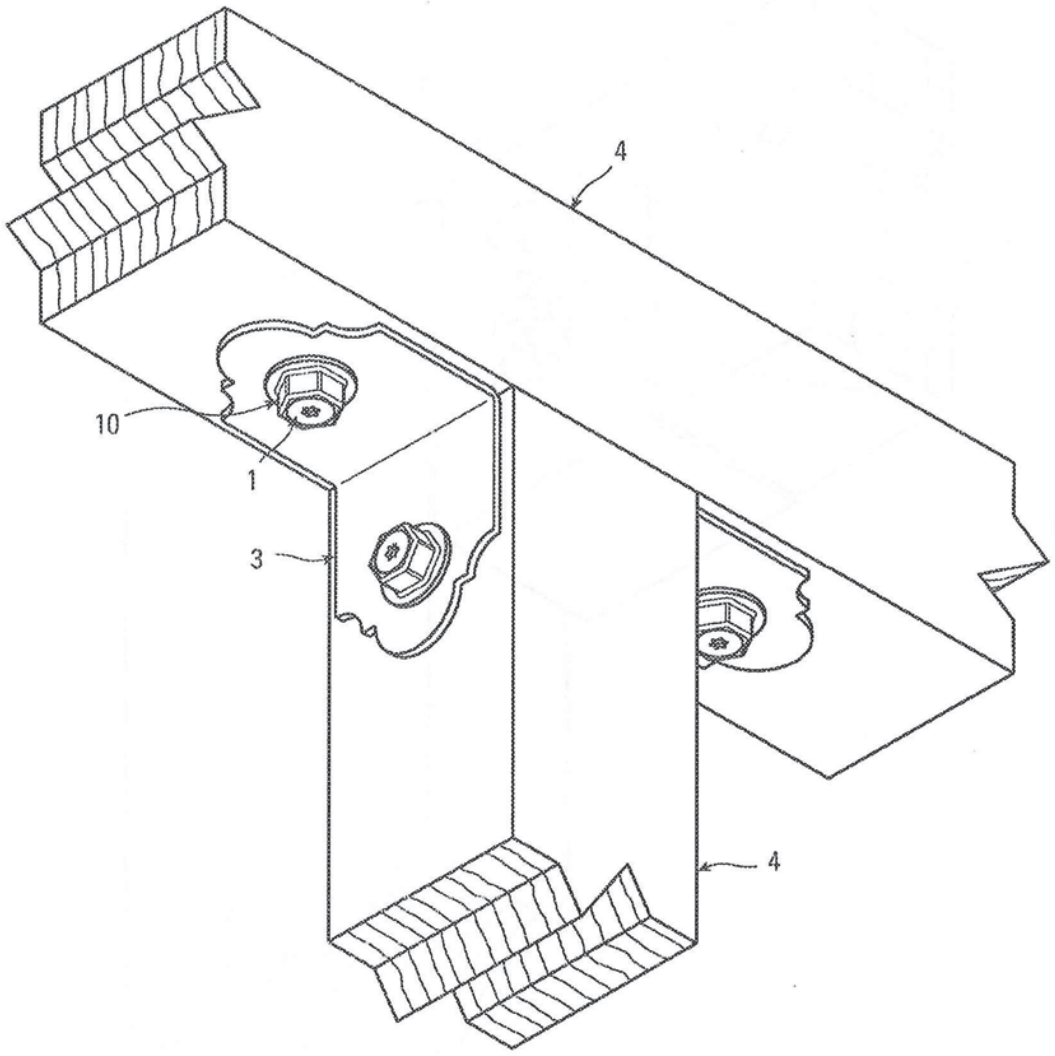

Fig. 36

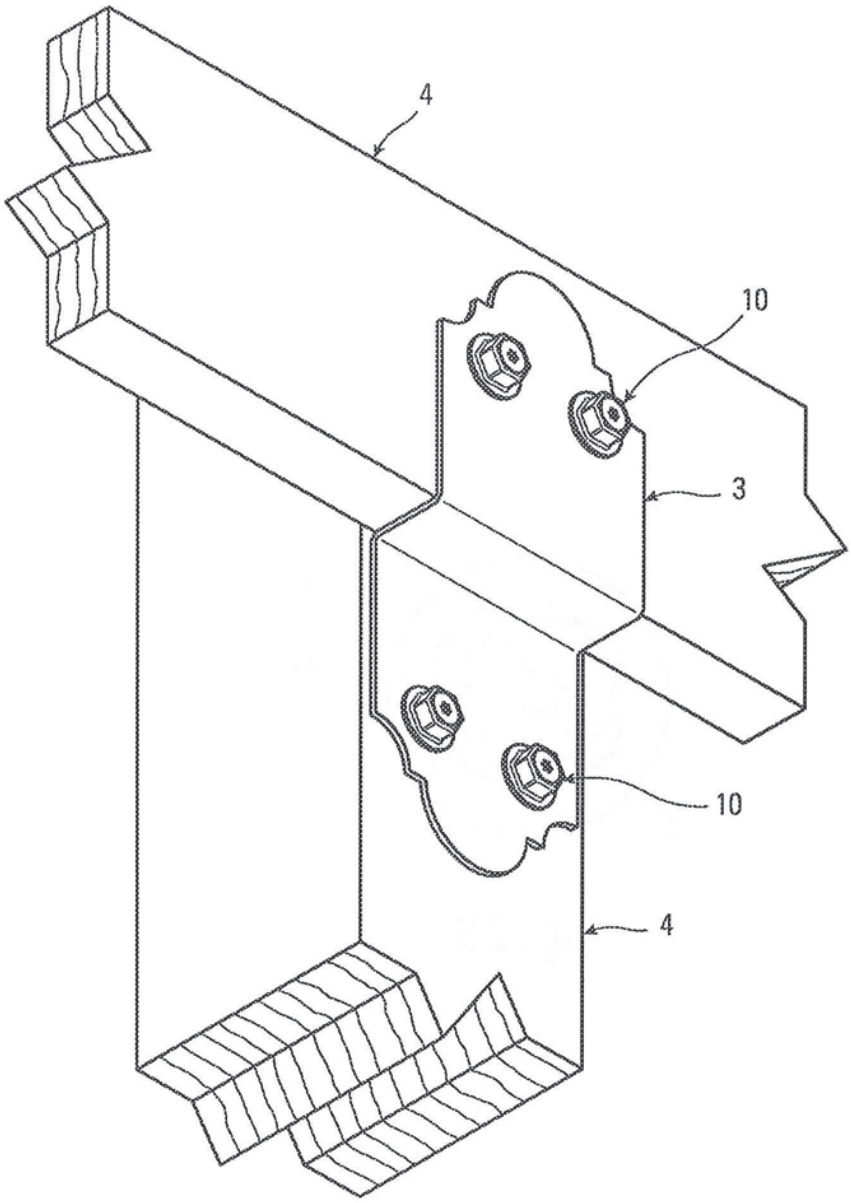

Fig. 37

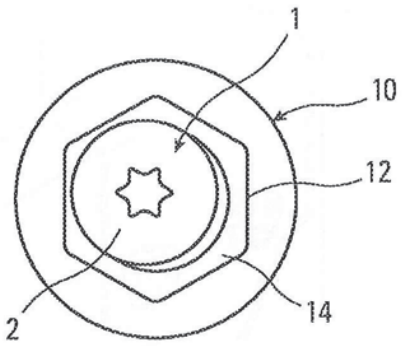

Fig. 38

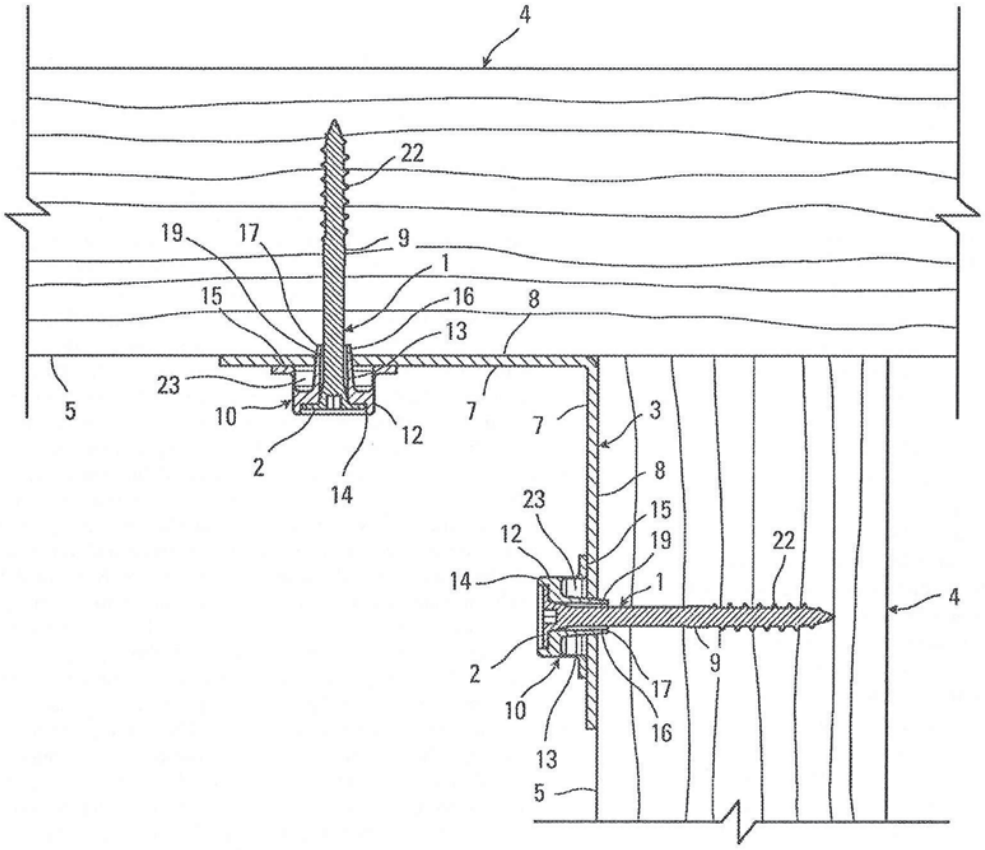
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Fig. 39

WASHER WITH SHEAR TUBE

The present invention relates to an improved fastener system for attaching a connector or other upper member to a lower structural member such as a post or beam, in particular the improved fastener consists of a fastener having an extending shank that is driven into a lower structural member and the fastener is received by a washer that also has an extending tube, and the extending tube of the washer is received by the connector or upper member and is also, preferably received in the structural member.

There are a number of patented fastener and washer systems.

U.S. Pat. No. 2,111,110, granted to A. J. Deniston, Jr., et al, on Apr. 21, 1937, teaches using an enlarged sealing head or washer with a nail or screw to secure sheathing and similar members to a roof or similar structure. The fastener used is formed with a special, enlarged shank portion, or alternatively an annular groove or series of notches, below the head of the fastener which is designed to resist pull-out of the fastener. The sealing head is made from lead or a softer material than the fastener head and is formed with a narrowing, depending shank that extends to the enlarged shank portion and closely receives the upper portion of the shank of the fastener. The sealing head is deformed by the driving of the nail or screw and helps seal the opening in the sheathing.

U.S. Pat. No. 3,305,987, granted to Floyd E. Weaver, et al, on Feb. 28, 1967, teaches using an enlarged, shear washer with an anchored bolt to secure together two structural members in a building. The shear washer is formed with an annular outer depending flange or load-supporting portion at is periphery that has cutting flutes or grooves and teeth that allow it to cut into one of the structural members. The shear washer is either threaded onto the bolt, itself, or the shear washer is driven into wooden structural member by the operation of threading a standard nut onto the bolt that is keyed with the shear washer. The shear washer improves the strength of the connection.

U.S. Pat. No. 5,201,627, granted to Marita Biedenbach on Apr. 13, 1993, teaches using a ring-shaped washer with a self-drilling, wood screw. The ring-shaped washer has a pair of downwardly depending annular edges that are pushed into the wood member when the screw is driven. These depending edges are disposed parallel to the shank of the fastener. The ring-shaped washer prevents over-driving of the fastener and helps to prevent the wood from splitting. According to Biedenbach, the ring-shaped washer translates forces from the screw to the structural member at right angles to shank of the screw. Also according to Biedenbach, this redirection of forces reduces wedge effects and reduces the likelihood of splitting of the structural member.

U.S. Pat. No. 8,544,291, granted to Jean-Nicolas Guyomard on Jun. 4, 2013, teaches a washer with protruding elements used with a screw to better anchor an "element" such as a headlight to a "holder" such as the front face of a vehicle. The protruding elements of the washer are located on the peripheral edge and the internal edge of the opening in the washer to connect to both the "element" and the "holder".

US Patent Publication 2013/0336743A1, applied for by Ian A. Hill, and published Dec. 19, 2013, teaches a fastener that is used with a decorative washer. The head of the fastener is received in the decorative washer and is covered by a cap with the decorative washer and cap are shaped to give the appearance that the fastener and washer are a one-piece, headed bolt, giving the connection a particular aesthetic.

The prior art inventions teach washers that either deform while being installed to help seal the connection or they have teeth, protruding members or are otherwise formed to positively engage with and/or deform the upper element or member in the connection.

SUMMARY OF THE INVENTION

The present invention provides a shear washer that is installed as quickly and in the same manner as a standard washer, yet provides improved fastener shear resistance.

The present invention provides a shear washer that is not designed to deform, nor does it deform or bite into the upper member or connector, although the shear tube of the shear washer can engage the opening in the connector or upper member that also receives the fastener.

In one embodiment, the present invention provides a shear washer that engages with the lower or anchoring structural member into which the fastener is driven.

In one embodiment of the present invention, a connection is provided between an anchoring structural member and an upper member with the anchoring structural member having an upper surface, and the upper member or connector having an upper surface and a lower surface. The lower surface of the upper member interfaces with the upper surface of the anchoring structural member. The upper member has a passage between the upper surface and the lower surface. The connection includes a fastener and a washer. The washer has a central body with a passage there through, a top surface and a bottom surface. The washer is formed with an extending tube that extends from the central body toward the anchoring structural member and past the bottom surface of the central body. The bottom surface of the central body interfaces with the upper surface of the upper member without deforming the upper surface of the upper member. The central body also has a bearing surface opposed to the bottom surface of the central body. The extending tube has a passage that communicates with the passage through the central body. The extending tube of the washer is received by the passage of the upper member without deforming the passage of the upper member. The fastener has a head and an extending shank. The extending shank of the fastener is received in the anchoring structural member and passes through the passage in the upper member and the passage in the extending tube and the passage in the central body of the washer. The head of the fastener has an underside that interfaces with the bearing surface of the central body of the washer.

In one preferred embodiment, the extending tube can be formed with a cutting edge.

In another preferred embodiment of the present invention, the extending shank of the fastener makes contact with the passage of the extending tube.

In the preferred embodiment, the fastener is preferably a screw.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a connection made according to the present invention.

FIG. **2** is an exploded, perspective view of a connection made according to the present invention shown in FIG. **1**.

FIG. **3** is a sectional, side view of the connection shown in FIG. **1**.

FIG. **4** is an upper perspective view of one embodiment of the separate washer that forms part of the connection of the present invention.

FIG. **5** is a lower perspective view of the separate washer that forms part of the connection of the present invention.

FIG. **6** is an exploded view of the separate screw and separate washer with a dotted line and arrow head showing how the separate screw is inserted into the washer.

FIG. **7** is an upper perspective view of the separate screw partially inserted into the separate washer;

FIG. **8** is an upper perspective view of the screw inserted fully into the washer of the present invention.

FIG. **9** is a top view of the separate washer that forms part of the present invention.

FIG. **10** is a bottom view of the separate washer that forms part of the present invention.

FIG. **11** is a front view of the separate washer that forms part of the present invention.

FIG. **12** is a side view of the separate washer that forms part of the present invention.

FIG. **13** is a top view of the screw shown fully inserted into one washer of the present invention as shown in FIG. **8**.

FIG. **14** is a bottom view of the screw shown fully inserted into one washer of the present invention.

FIG. **15** is a front view of the embodiment shown in FIGS. **8**, **13** and **14**.

FIG. **16** is a side view of the embodiment shown in FIGS. **8**, **13** **14**, and **15**.

FIG. **17** is a sectional, side view of the connection similar to that shown in FIG. **1**, except the screws have been installed slightly askew.

FIG. **18** is a perspective view of a connection made according to the present invention, showing an alternate washer embodiment.

FIG. **19** is an exploded, perspective view of a connection made according to the present invention shown in FIG. **18**.

FIG. **20** is a sectional, side view of the connection shown in FIG. **18**.

FIG. **21** is an upper perspective view of an alternate embodiment of the separate washer that forms part of the connection of the present invention.

FIG. **22** is a lower perspective view of the separate washer of FIG. **21** that forms part of the connection of the present invention.

FIG. **23** is an exploded view of the separate screw and separate washer of FIG. **21** with a dotted line and arrow head showing how the separate screw is inserted into the washer.

FIG. **24** is an upper perspective view of the separate screw partially inserted into the separate washer;

FIG. **25** is an upper perspective view of the screw inserted fully into the washer of FIG. **21** of the present invention.

FIG. **26** is a top view of the separate washer of FIG. **21** that forms part of the present invention.

FIG. **27** is a bottom view of the separate washer of FIG. **21** that forms part of the present invention.

FIG. **28** is a side view of the separate washer of FIG. **21** that forms part of the present invention.

FIG. **29** is a top view of the screw shown fully inserted into one washer of the present invention as shown in FIG. **25**.

FIG. **30** is a bottom view of the screw shown fully inserted into one washer of the present invention.

FIG. **31** is a side view of the embodiment shown in FIGS. **25**, **29** and **30**.

FIG. **32** is a perspective view of an alternate connection made according to the present invention.

FIG. **33** is a perspective view of an alternate connection made according to the present invention.

FIG. **34** is a perspective view of an alternate connection made according to the present invention.

FIG. **35** is a perspective view of an alternate connection made according to the present invention.

FIG. **36** is a perspective view of an alternate connection made according to the present invention.

FIG. **37** is a perspective view of an alternate connection made according to the present invention.

FIG. **38** is a top view of the screw shown fully inserted into one washer of the present invention.

FIG. **39** is a sectional, side view of the connection.

DETAILED DESCRIPTION OF THE INVENTION

As shown in FIG. **1**, the fastener **1**, having a head **2**, of the present invention attaches a connector or anchored member **3** to an anchoring structural member **4**. As shown in FIG. **1** the connector **3** attaches to two different anchoring structural members **4**, a post **4***a* and a beam **4***b*. The fastener **1** attaches a connector or upper member **3** to the anchoring structural member **4** by means of an extending shank **9**.

As shown in FIG. **3**, the anchoring structural member **4** has an upper surface **5**. The upper member or connector **3** has an upper surface **7** and a lower surface **8**. The lower surface **8** of the upper member **3** interfaces with the upper surface **5** of the anchoring structural member **4**. The upper member **3** has a passage **6** between the upper surface **7** and the lower surface **8**. The passage **6** can be a notch in the upper member **3** or, as shown in FIG. **2**, an opening through upper member **3** with a closed peripheral edge.

As shown in FIGS. **2**, **4** and **5**, the washer **10** of the present invention has a central body **12** with a passage **13** there through, a top surface **14** and a bottom surface **15**. The central body **12** of washer **10** can be preferably shaped to resemble a typical hexagonal nut or bolt head with a circular, laterally extending washer beneath the nut.

The washer **10** is formed with an extending tube **16** that extends from the central body **12** toward, and preferably, into the anchoring structural member **4**. In one preferred embodiment, the extending tube **16** can be formed with a cutting edge **17**.

The extending tube **16** of washer **10** is driven into the lower or anchoring structural member **4** by fastener **1**, which is preferably a screw. The underside **18** of the head **2** of the screw **1** pushes the extending tube **16** of the washer **10** into the upper surface **5** of the structural member **4**.

As shown best in FIGS. **4** and **5**, the washer **10** has a central body **12** with a passage **13** through the central body **12**. The central body **12** has a bottom surface **15** with the bottom surface **15** of the central body **12** interfacing with the upper surface **7** of the upper member **3** without deforming the upper surface **7** of the upper member **3**. The central body **12** also has a bearing surface **20** opposed to the bottom surface **15** of the central body **12**. The washer **10** is also formed with an extending tube **16** that extends from the central body **12** and extends past the bottom surface **15** of the central body **12**. The extending tube **16** has a passage **19** that communicates with the passage **13** through the central body **12**. The extending tube **16** of the washer **10** is received by the passage **6** of the upper member **3** without deforming the passage **6** of the upper member **3**. As shown in FIG. **39**, the upper portion of the passage **13** near the bearing surface **20** is formed to conform closely to the shape of the portion

of the shank **9** that it receives. This is the portion of the shank **9** just below the head **2** of the fastener **1**.

As shown in FIGS. **2** and **3**, the fastener **1** has a head **2** and an extending shank **9**. The extending shank **9** of the fastener **1** is received in the anchoring structural member **4** and passes through the passage **6** in the upper member **3** and the passage **19** in the extending tube **16** and the passage **13** in the central body **12** of the washer **10**. The head **2** of the fastener **1** has an underside **18** that interfaces with the bearing surface **20** of the central body **12** of the washer **10**.

As shown in FIG. **3**, the extending tube **16** closely interfaces with the passage **6** in the upper member **3**, and preferably, the extending tube **16** of the washer **10** is also received in the anchoring structural member **4**.

As shown in FIGS. **3**, **5** and **10**, the extending tube **16** of the washer **10** has a distal edge **21** where it projects farthest from the central body **12** and the distal edge **21** is formed to cut into the anchoring structural member **4**.

Preferably, the washer **10** is hard enough that it resists being deformed by the fastener **1** when the underside **18** of the head **2** of the fastener **1** interfaces with the bearing surface **20** of the central body **12** of the washer **10**.

As shown in FIG. **17**, the extending shank **9** of the fastener **1** can make contact with the passage **19** of the extending tube **16**.

As shown in FIG. **2**, the fastener **1** has a thread **22** that interlocks with the anchoring structural member **4**.

As shown in FIG. **3**, preferably, the bottom surface **15** of the central body **12** of the washer **10** is a flat surface, and the upper surface **7** of the upper member **3** where it interfaces with the bottom surface **15** of the central body **12** of the washer **10** is a flat surface. In the preferred embodiment, the upper surface **5** of the anchoring structural member **4** is also a flat surface.

As shown in FIG. **5**, the central body **12** can be formed with an annular cavity **23** that surrounds the passage **13** through the central body **12**.

As shown in FIG. **1**, the upper member can be a connector **3**, and the upper member **3** receives a plurality of fasteners **1** that connect the upper member **3** to a plurality of anchoring structural members **4***a* and **4***b*.

The lower, cutting edge **17** of the extending tube **16** cuts or compresses the wood fibers of the anchoring structural member **4** when it is made from wood.

To install, the washer **10** is positioned on the **4** anchoring structural member at a desired location. The fastener **1** is driven into the anchoring structural member **4** through the passage **13** in the washer **10** until the head **2** of the fastener **1** rests against the bearing surface **20** of the washer **10**. The fastener **1**, connector **3** and the washer **10** can all be made from steel.

We claim:

1. A connection between an anchoring structural member and an upper member, the connection comprising:

a. the anchoring structural member having an upper surface;

b. the upper member, the upper member having a upper surface and a lower surface, the lower surface of the upper member interfacing with the upper surface of the anchoring structural member, the upper member having a passage between the upper surface and the lower surface;

c. a washer, the washer having a central body with a passage through the central body, the central body having a bottom surface with the bottom surface of the central body interfacing with the upper surface of the upper member without deforming the upper surface of the upper member, the central body also having a bearing surface opposed to the bottom surface of the central body, the washer also having an extending tube that extends from the central body and extends past the bottom surface of the central body, the extending tube having a passage that communicates with the passage through the central body, the extending tube of the washer being received by the passage of the upper member without deforming the passage of the upper member;

d. a fastener having a head and an extending shank, the extending shank of the fastener being received in the anchoring structural member and passing through the passage in the upper member and the passage in the extending tube and the passage in the central body of the washer, the head of the fastener having an underside that interfaces with the bearing surface of the central body of the washer; and

e. the extending tube of the washer is also received in the anchoring structural member.

2. The connection of claim **1**, wherein:

the extending tube closely interfaces with the passage in the upper member.

3. The connection of claim **2**, wherein:

the washer is hard enough that it resists being deformed by the fastener when the underside of the head of the fastener interfaces with the bearing surface of the central body of the washer.

4. The connection of claim **3**, wherein:

the extending shank of the fastener makes contact with the passage of the extending tube.

5. The connection of claim **4**, wherein:

a. the bottom surface of the central body of the washer is a flat surface; and

b. the upper surface of the upper member where it interfaces with the bottom surface of the central body of the washer is a flat surface.

6. The connection of claim **5**, wherein:

the upper surface of the anchoring structural member is a flat surface.

7. The connection of claim **6**, wherein:

the central body has an annular cavity that surrounds the passage through the central body.

8. The connection of claim **7**, wherein:

the upper member is a connector, and the upper member receives a plurality of fasteners that connect the upper member to a plurality of anchoring structural members.

9. The connection of claim **1**, wherein:

the extending tube of the washer has a distal edge where it projects farthest from the central body and the distal edge is formed to cut into the anchoring structural member.

10. The connection of claim **9**, wherein:

the fastener has a thread that interlocks with the anchoring structural member.

11. The connection of claim **10**, wherein:

a. the bottom surface of the central body of the washer is a flat surface; and

b. the upper surface of the upper member where it interfaces with the bottom surface of the central body of the washer is a flat surface.

12. The connection of claim **11**, wherein:

the upper surface of the anchoring structural member is a flat surface.

13. The connection of claim **12**, wherein:

the central body has an annular cavity that surrounds the passage through the central body.

14. The connection of claim **13**, wherein:
the upper member is a connector, and the upper member receives a plurality of fasteners that connect the upper member to a plurality of anchoring structural members.

15. The connection of claim **14**, wherein:
the washer is hard enough that it resists being deformed by the fastener when the underside of the head of the fastener interfaces with the bearing surface of the central body of the washer.

16. The connection of claim **15**, wherein:
the extending shank of the fastener makes contact with the passage of the extending tube.

17. The connection of claim **1**, wherein:
the washer is hard enough that it resists being deformed by the fastener when the underside of the head of the fastener interfaces with the bearing surface of the central body of the washer.

18. The connection of claim **1**, wherein:
the extending shank of the fastener makes contact with the passage of the extending tube.

* * * * *

Exhibit J

R E P O R T

UNITES STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

SIMPSON STRONG-TIE COMPANY INC.	)	
Plaintiff	)	
v.	)	**CASE: 3:18-cv-01188-WHO**
OZ-POST INTERNATIONAL, LLC	)	
Defendant	)	

AE-0105

REBUTTAL REPORT OF JOHN D. PRATT CONCERNING NONINFRINGEMENT OF US D798,701 and US 9,957,998 PATENTS

Prepared for:	Shartsis Friese LLP
Author:	John D. Pratt, Ph.D., P.E.
Date:	July 17, 2019

TABLE OF CONTENTS

EXHIBITS

I. INTRODUCTION

1. I, John Pratt, Ph.D., have been retained on behalf of Simpson Strong-Tie to opine as to whether certain Strong-Tie products infringe United States patents US D798,701 and US 9,957,998 and to rebut the opening expert report by the expert for Oz-Post International ("Ozco") by Mr. Paul Hatch. This case is pending in the United States District Court for the Northern District of California. I hereby submit this written report.

II. QUALIFICATIONS

2. I hold Bachelor and Master of Science degrees in Mechanical Engineering from California State University, Fullerton, and a Ph.D. in Civil Engineering (Structural Mechanics) from the University of California, Irvine.

3. I have worked on the development of permanent and temporary fasteners, as well as related tooling and equipment, for the aerospace, commercial, industrial and sporting goods markets from August 1969 through the present. I am the named inventor on 48 United States patents and dozens of corresponding foreign patents and at present have several patent applications pending before the USPTO. As the senior engineering executive for three medium-sized aerospace hardware companies from early 1979 through mid-2005, I was responsible for reviewing the work of in-house and outside patent counsel and selecting outside counsel to handle intellectual property matters.

4. In my role as engineering executive I was intimately involved in helping to draft patent specifications and claim language, as well as critiquing the work product of patent counsel. I was also the in-house liaison (PMK) for several patent infringement lawsuits. As the head of Engineering and

Research and Development, I was responsible for interpreting the patents of competitors so that inadvertent infringement could be avoided, and the novelty of new concepts determined. Finally, I gained valuable experience as a core member of a Textron Inc. team tasked with preparing a corporate-wide intellectual property policy and procedure.

5. During my career I gained hands-on experience in the design and development of complex electro-mechanical mechanisms and components. For example, I have designed and helped to commercialize electrical and fluid powered installation tools and machines with hundreds of components utilizing metals, plastics and composite materials. I have also overseen the design and qualification of numerous electrical and mechanical aircraft systems including intrusion resistant flight deck door latches, pressure sensing mechanisms for aircraft rapid decompression events, the Comanche helicopter pilot and co-pilot door mechanisms, numerous aircraft engine nacelle latching and hold-open rod mechanisms, aircraft engine pressure relief door mechanisms and remote latching mechanisms for thrust reversers and fan doors on aircraft engines. I have also designed electronic circuits for secure flight deck door time-delay applications.

6. During the period between 2000 and the present I have worked on the development of mechanical and electro-mechanical latching and locking devices for aircraft, as well as development of fluid-driven tools for installation of aircraft assembly clamps. In the wake of the events of 9/11 I co-invented and led the development of a family of pressure-sensing and intrusion-resistant latches for aircraft cockpit doors and decompression panels. These are presently installed on approximately half the world's feet of commercial transport aircraft. More recently I have been intimately involved in the design and development of permanent and temporary

fasteners for robotic assembly of new aircraft. I have also been involved in recent patent litigation including cases involving hurricane abatement systems, pressure-sensing panel latches, reversible electric strike mechanisms, reversible mortise door locks, keyboard support mechanisms, automated box spring stapling machines, combat helmets, shipping container loading machines, electronic vending machine door locking mechanisms, instant ticket vending machines, folding chairs, hook and loop fasteners and motor-driven gun safe locks. Finally, I have served as an expert on several contracts-related cases involving the B-1 bomber (Conventional Weapons Upgrade Program) and electro-mechanical pressure switches.

7. Presently, I have my own consulting practice in which I provide litigation consulting as well as occasionally perform new product development and consulting for industrial clients. My Curriculum Vitae, which is attached as Exhibit 1, summarizes my education, experience, and qualifications as well as my court testimony for the previous four years.

III. COMPENSATION

8. I am being compensated for my work on this case at $332.50 per hour except that travel in excess of three hours is invoiced at $166.25 per hour.

IV. REFERENCES

9. Attached as Exhibit 2 is a list of documents and things that I have reviewed and considered in forming my opinions in this matter. In addition to the documents and things listed in Exhibit 2, I have relied upon my education and experience in the field of mechanical and structural engineering, including my specific experiences with fabrication of metal and plastic fastener components.

10. I have reviewed the Court's claim construction ruling (Doc. No. 87) for the disputed terms, summarized in Table 1 below. I understand that the Court

has not issued a claim construction ruling for any other terms which may be in dispute. I reserve the right to supplement or update my opinions when, and if, the Court issues any additional claim constructions.

TABLE 1—Construed Claim Terms

Claim Term	Construction
"hexagonal shape"	"shape with six sides"
"plurality"	"two or more"
"cap"	"a closed cover"
"disposed within"	"situated entirely within"
"cap," "screw," and "washer/nut member"	The "cap," "screw," and "washer/nut member" are separate elements
"washer/nut member"	The phrase "a washer/nut member comprising" is a preamble that is not limiting
"annular surface"	"a ring-shaped surface between two circles"
"disposed radially . . ."	"extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member"
"flange portion"	"a projecting edge" The flange portion may but need not be combined with the washer/nut member
"screw"	Plain and ordinary meaning
"head portion"	Plain and ordinary meaning
"shaft portion"	Plain and ordinary meaning
"is configured to surround a shaft portion of a screw that contacts the annular surface"	"is configured to surround a shaft portion of a screw, which screw contacts the annular surface"

11. At trial, I may rely upon demonstratives to illustrate some of the concepts and conclusions set forth in my report. I have not yet determined what demonstratives I may use at trial.

12. Throughout my report, I may identify specific portions of prior art references for exemplary purposes. The cited portions are not intended to set forth an exhaustive list of every relevant portion of the cited reference. A person of ordinary skill in the art would generally read each prior art reference as a whole and in the context of other publications, literature, and general knowledge in the field. I therefore reserve the right to rely upon additional portions of a reference not specifically cited.

V. SUMMARY OF OPINIONS AND EXPECTED TESTIMONY

13. Neither Simpson's Outdoor Accents Hex Head Washer and Structural Wood Screw, each or in combination, infringe any claims of US 9,957,998 ("the '998 Patent") or US D798,701 ("the '701 Patent").

14. I expect to testify concerning the following issues:

a. The knowledge and level of a person of ordinary skill in the art relating to the '998 Patent and the '701 Patent in June, 2012 and June 2013.

b. Why the accused Simpson Strong-Tie products do not infringe the '701 and '998 patents.

VI. APPLICABLE LEGAL STANDARDS

15. I will not offer opinions of law as I am not an attorney. However, I have been informed of several principles concerning patent infringement, which I used in arriving at my conclusions. I have not studied the cited references in the following section dealing with legal principles.

A. Legal Principles Of Utility Patent Infringement

16. It is my understanding that the determination of patent infringement involves a two-step process. "The claimed invention must first be defined, a legal question of claim interpretation. Second, the trier of fact must determine whether the claims, as properly interpreted, cover the accused device…." *Smithkline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 889 (Fed. Cir. 1988). The first step is a question of law, and the second step is a question of fact. *ActiveVideo Networks, Inc. v. Verizon Communs., Inc.*, 694 F.3d 1312, 1319 (Fed. Cir. 2012).

17. With regard to step one, where the Court construed a claim term in its Claim Construction Order, I have adopted that construction for the purposes of this report. Where the Court did not construe a claim term, I

have used the plain and ordinary meaning as understood by a person with ordinary skill in the art.

18. With regard to step two, I understand that the trier of fact must determine whether, using the properly construed claims as a guide, every claim limitation or its equivalent is found in the accused device. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1997).

19. It is my understanding that OZCO has asserted that the Accused Products literally infringe on its '998 Patent, and that the Doctrine of Equivalents is not at issue in this action.

20. Literal infringement requires the patentee to prove that the accused instrumentality contains each limitation of the asserted claims. *Bayer AG v. Elan Pharm. Research Corp.*, 212 F. 3d 1241, 1247 (Fed. Cir. 2000). "[L]iteral infringement requires that each and every limitation set forth in a claim appear in an accused product." *Frank's Casing Crew & Rental Tools, Inc. v. Weatherford Int'l, Inc.*, 389 F.3d 1370, 1378 (2004).

21. A claim cannot be literally infringed if any claim element or limitation is missing from the accused product. "Any deviation from the claim precludes ... a finding [of literal infringement]." *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 1330 (Fed. Cir. 2001). "If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law." *Bayer*, 212 F. 3d at 1247.

22. There can be no literal infringement where claim language requires separate structures and one such structure is missing from an accused device. In *Becton, Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F. 3d 1249, 1250 (Fed. Cir. 2010), the Federal Circuit held that the use of different terms in patent claims connotes different meanings, absent evidence to the contrary. The Federal Circuit granted the defendant in that case judgment as a matter of law for non-infringement because "[t]here can

be no literal infringement where a claim requires two separate structures and one such structure is missing from an accused device." *Id*. at 1255. The Court explained:

> Because the unequivocal language of the asserted claims of the '544 patent requires both a hinged arm and a spring means, there can be no literal infringement by Tyco's accused products which, as the district court correctly concluded, do not contain a spring means that is a separate structural element from the hinged arm and its hinges.

Id. at 1255-1256.

B. **Legal Principles Of Design Patent Infringement**

23. It is my understanding that in order for a patent owner to prove that an accused instrumentality infringed its design patent, the patent owner must establish that an ordinary observer would be deceived into believing that the accused instrumentality is the same as the patented design. "[I]nfringement will not be found unless the accused article embodies the patented design or any colorable imitation thereof." *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 678 (Fed. Cir. 2008).

> A design patent is infringed 'if, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other.'

Ethicon Endo-Surgery, Inc. v. Covidien, Inc., 796 F.3d 1312, 1335 (Fed. Cir. 2015) (quoting *Egyptian Goddess*, 543 F.3d at 670).

24. Under this "ordinary observer" test, the Court compares the patented and accused designs "for overall visual similarity." *Elmer v. ICC Fabricating, Inc.*, 67 F.3d 1571, 1577 (Fed. Cir. 1995). "[I]t is the appearance of a design as a whole which is controlling in determining questions of ... infringement." *Contessa Food Prods., Inc. v. Conagra, Inc.*, 282 F.3d 1370, 1378 (Fed. Cir. 2002), abrogated on other grounds by *Egyptian Goddess*, 543 F.3d at 672-679.

25. "The focus of the 'ordinary observer' test 'is on the actual product that is presented for purchase, and the ordinary purchaser of that product.'" *Solar Sun Rings, Inc. v. Wal-Mart Stores, Inc.*, 2012 U.S. Dist. LEXIS 156373, 8 (C.D. Cal. Oct. 31, 2012) (quoting *Goodyear Tire & Rubber Co. v. Hercules Tire & Rubber Co.*, 162 F.3d 1113, 1116 (Fed. Cir.1998), abrogated on other grounds by *Egyptian Goddess*, 543 F.3d at 672-679.

26. Differences between the accused and claimed design "must be evaluated in the context of the claimed design as a whole, and not in the context of separate elements in isolation." *Ethicon*, 796 F.3d at 1335 (citing *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1295 (Fed. Cir. 2010) and *Crocs, Inc. v. Int'l Trade Comm'n*, 598 F.3d 1294, 1303-04 (Fed. Cir. 2010)). "An element-by-element comparison, untethered from application of the ordinary observer inquiry to the overall design, is procedural error." *Ethicon*, 796 F.3d at 1335 (citing *Amini Innovation Corp. v. Anthony Cal., Inc.*, 439 F.3d 1365, 1372 (Fed. Cir. 2006)). *See also OddzOn Prods. v. Just Toys*, 122 F.3d 1396, 1405 (Fed. Cir. 1997). ("It is the appearance of a design as a whole which is controlling in determining infringement. There can be no infringement based on the similarity of specific features if the overall appearance of the designs are dissimilar.").

27. In instances where the claimed and accused designs are not plainly dissimilar, "resolution of the question whether the ordinary observer would consider the two designs to be substantially the same will benefit from a comparison of the claimed and accused designs with the prior art…." *Egyptian Goddess*, 543 F.3d at 678. Differences between the designs that may not be noticeable at first glance "can become significant to the hypothetical ordinary observer who is conversant with the prior art." *Id*.

28. In determining whether a product design infringes a patented design, the product is compared to the design, and it is immaterial how the product

may look when it is actually in use. *See, e.g., Keystone Retaining Wall Sys., Inc. v. Westrock, Inc.*, 997 F.2d 1444, 1450 (Fed. Cir. 1993) (the patented design of a block used in building retaining walls is defined by the block as a whole, and not only those features that are visible when the block is installed).

VII. SUMMARY OF THE PATENTS-IN-SUIT

29. I understand that OZCO has asserted infringement of the ’701 design patent titled “Simulated Bolt Hardware” and Claims 1-5 and 7 of the ’998 patent titled “Mounting Hardware”. My understanding is based on Defendant’s Second Amended Asserted Claims and Infringement Contentions dated January 17, 2019. In this report, I have only addressed the claims currently asserted by OZCO. I reserve the right to address any other claims in the patent should the Court permit OZCO to assert them at a later date.

VIII. THE ’998 PATENT

30. **Claim 1 recites**:

“An apparatus, comprising:

a washer/nut member comprising:

a plurality of outer surfaces disposed in a hexagonal shape [shape with six sides];

an inner cylindrical surface disposed radially internal to the plurality [two or more] of outer surfaces;

an intermediate cylindrical surface disposed radially [extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member] between the plurality [two or more] of outer surfaces and the inner cylindrical surface;

and an annular surface [a ring-shaped surface between two circles] disposed radially [extending uniformly from and perpendicular to a straight line running through the center of the washer/nut member] between the inner cylindrical surface and the intermediate cylindrical surface;

and a cap [a closed cover] disposed within [situated entirely within] the intermediate cylindrical surface;

wherein the inner cylindrical surface is configured to surround a shaft portion of a screw that contacts the annular surface [a ring-shaped surface between two circles]; and wherein the washer/nut member further comprises an upper annular surface [a ring-shaped surface between two circles] and a flat surface of the cap [closed cover] is substantially flush with the upper annular surface."

Claim 2 recites:

"The apparatus of claim 1 wherein the washer/nut member further comprises a flange portion [a projecting edge] disposed radially external to the plurality of outer surfaces."

Claim 3 recites:

"The apparatus of claim 1 further comprising the screw wherein the shaft portion of the screw is surrounded by the inner cylindrical surface and a head portion of the screw contacts the annular surface [a ring-shaped surface between two circles]."

Claim 4 recites:

"The apparatus of claim 1 wherein the cap [closed cover] includes a tool receiving feature."

Claim 5 recites:

"The apparatus of claim 4 wherein the tool receiving feature is an opening."

Claim 7 recites:

"The apparatus of claim 5 further comprising the screw received through the inner cylindrical surface and the intermediate cylindrical surface."

IX. THE '701 PATENT

31. The '701 patent is a design patent covering the ornamental design of a washer/nut assembly excluding any central recess in the top, flat surface of the cap element. The illustrations provided in the '701 design patent clearly shows (a) a flat surface of the cap is substantially flush with the upper annular surface of the washer/nut element, (b) a threaded connection

between the cap and washer/nut elements, and (c) a perfectly flat bearing surface on the underside of the washer/nut element.

X. OVERVIEW OF THE ACCUSED PRODUCTS

32. The accused products are Simpson's "Outdoor Accents" Hex Head Washer and Structural Wood Screw (the "Accused Products"), shown in Figures 1 and 2, below.

FIGURE 1—Outdoor Accents Hex Head Washer Rendering

FIGURE 2—Outdoor Accents Structural Wood Screw

33. The Accused Products can be used in conjunction with connectors of various designs to simulate the appearance of vintage bolted joints, as shown below.

FIGURE 3—Simulated Bolted Joint Using Outdoor Accents Hardware

34. It is Simpson's Structural Wood Screw and Hex Head Washer that are accused of infringing the '701 and '998 Patents. However, I will show that those products do not infringe OZCO's '701 Patent, or OZCO's '998 Patent, in view of the Court's Claim Construction Ruling.

XI. THE LEVEL OF ORDINARY SKILL IN THE ART

35. The patents-in-suit pertain to the field of architectural hardware. It is my opinion that a person of ordinary skill in the art would likely have a four-year degree in mechanical engineering or other technical field of study, or

equivalent experience, and at least two years' experience in industry studying, developing or working with industrial hardware components or industrial machinery.

XII. ANALYSIS OF NONINFRINGEMENT OF THE '998 PATENT

36. I understand that OZCO has accused Simpson of infringement of claims 1-5 and 7 the '998 patent. Claim 1 is the only independent claim. Independent Claim 1 of the '998 Patent requires, among other things, a "cap", "screw", and "washer/nut". As evident from Table 1 above, the Court recognized that "[w]here a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented invention."[1]

37. The Court further cites to cases in which the clear implication is that separately-listed elements in a claim are distinct components.[2] Mr. Hatch in his opening expert report completely ignores the Court's claim construction ruling in this regard and asserts infringement by insisting that the head of Simpson's screw doubles as a "cap". However, the head of the screw cannot also double as a cap because the cap is a separate element as construed by the Court.

[1] Claim Construction Order, Docket No. 87 page 5, quoting *Becton,* 616 F.3d at 1254.
[2] See *id.*, citing *Gaus v. Conair Corp*., 363 F.3d 1284, 1288-89 (Fed. Cir. 2004); *Regents of Minnesota v. AGA Med. Corp*., 717 F.3d 929, 935 (Fed. Cir. 2013).

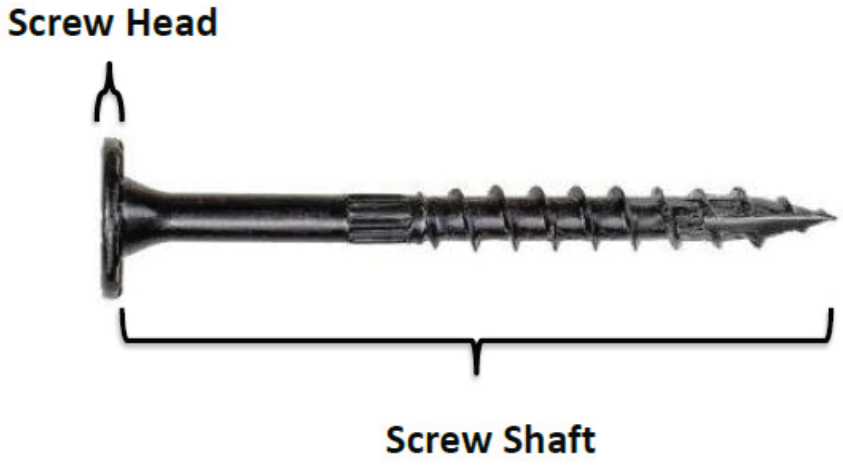


FIGURE 4—Simpson's Structural Wood Screw

38. Pursuant to the case law cited above (Section VI.A.), separate elements of a patent must be mapped to separate components of an accused product. Because Mr. Hatch maps the separate elements of "cap" and "the head portion of the screw" to the same component of the accused Structural Wood Screw, his infringement analysis is contrary to the Court's claim construction. Since the Court's Claim Construction Ruling establishes that "cap", "screw", and "washer/nut member" are separate elements, the accused products cannot read on claim 1 or any of the dependent claims of the '998 patent.

39. Contrary to Mr. Hatch's flawed analysis, the Accused Products do not have a cap. Mr. Hatch asserts that the head of Simpson's Structural Wood Screw reads on the element of claim 1 that teaches "a cap disposed within the intermediate cylindrical surface." *See* June 19, 2019 Expert Report of Paul Hatch Regarding Infringement ("Hatch Report") at p. 55. Hatch points to the head of the screw and labels it a "closed cover," but he covers the head of the screw with a solid blue circle, covering the tool receiving feature in the head of the screw. *Id*. Mr. Hatch further points to everything

under the head of the screw (colored green in his picture) and labels it as the "shaft" of the screw. *Id*. at 70.

40. Even if Hatch's opinion were correct under the Court's claim construction ruling regarding separate elements (which it is not), the head of Simpson's Structural Wood Screw does not constitute a cap, which is defined as "a closed cover". The head of the accused Simpson Structural Wood Screw has a drive recess ("hole") having a depth (~0.162") that is much greater than the head's thickness (~0.114") so that the head is not "closed", as shown in FIG. 5, below.[3] The head of the Structural Wood Screw has a cavity (i.e., hole) through it as illustrated in FIG. 6. The head of the screw is therefore not a "closed cover."

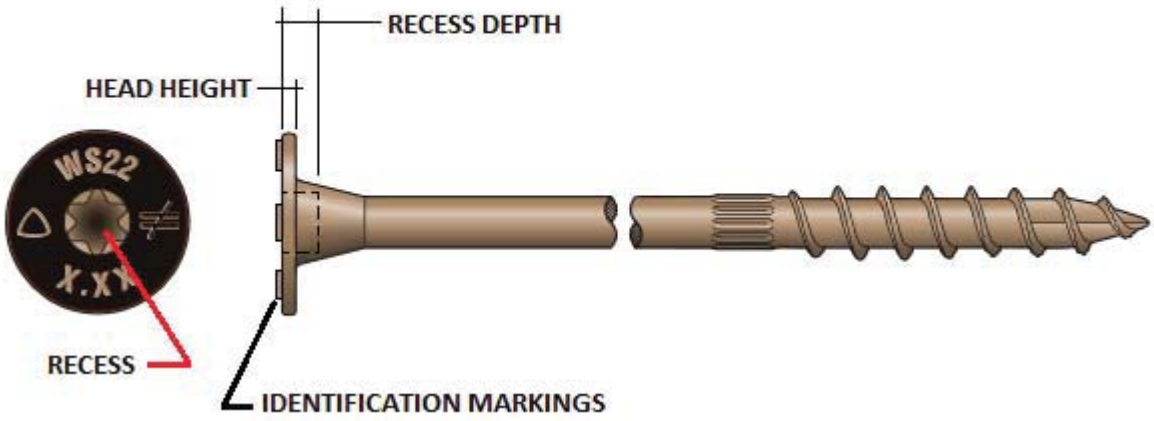


FIGURE 5—Simpson Structural Wood Screw Recess Depth And Head Height

[3] The Simpson Structural Wood Screw also has raised identification symbols that protrude 0.015" above its surface as illustrated in FIG. 5.

FIGURE 6—Photograph Of The Head Of The Simpson Structural Wood Screw After Removal Of The Shaft Portion

41. Dependent Claims 2, 3, 4, 5 and 7 are also not infringed because the "cap" element is missing from the Simpson accused products.

XIII. ANALYSIS OF NONINFRINGEMENT OF THE '701 PATENT

42. An ordinary observer in this case would be a contractor or DIY customer having an interest in purchasing hardware for later installation in a construction project. An ordinary observer would not confuse Simpson's Outdoor Accents hardware with OZCO's patented design because of significant differences in the overall appearance at the point of purchase, prior to installation into a workpiece. The Structural Wood Screw and Hex Head Washer are sold separately. Mr. Hatch does not actually compare the appearance of the Accused Products at the point of purchase with the Patented design.

A. To An Ordinary Observer, The Accused Products Are Substantially Different Than The Design Claimed In The '701 Patent.

43. The Accused Products have a substantially different overall appearance, separately and when combined, than the figures of the '701 Patent. The visual appearance of the Hex Head Washer, alone, and the appearance of the Structural Wood Screw, alone, look substantially different than the figures of the '701 Patent. When the Accused Products are combined, they

also look substantially different than the figures of the ’701 Patent. The overall visual differences are based, in part, on the following characteristics of the Accused Products.

44. The ’701 Patent claims a flat surface of the cap with no identifying markings or design. The head of the Structural Wood Screw has raised identifying marks (measuring approximately 0.015”), which include “WS22” and the size, “3.5” for the SDWS223112DB and “5.5” for the SDWS22512DBB, as shown in FIGS. 7 and 8, below.

45. The washer portion of the Hex Head Washer contains a further identifying mark: Simpson’s trademark, no-equal symbol: “≠”, as shown in FIG. 8.

FIGURE 7—Comparison Of Figure 2 of the ’701 Patent To The Accused Products

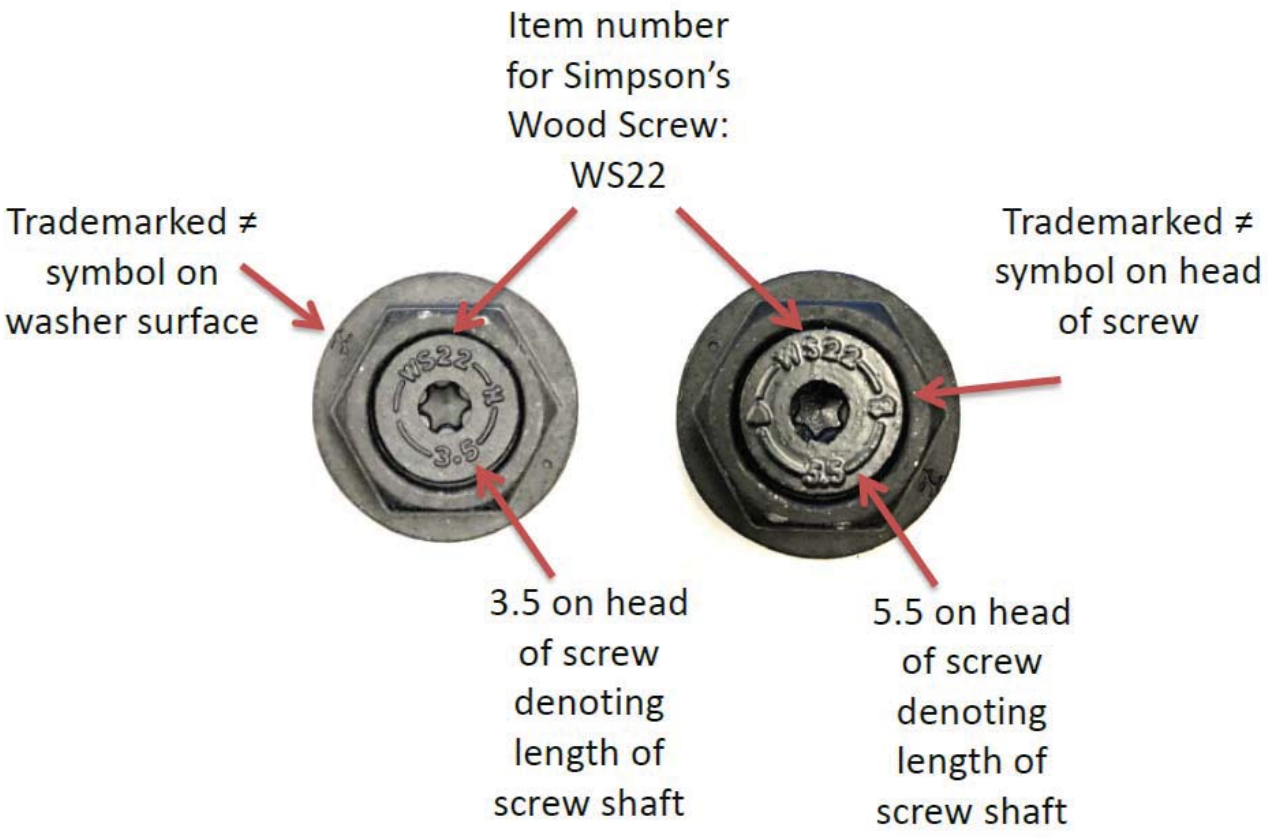
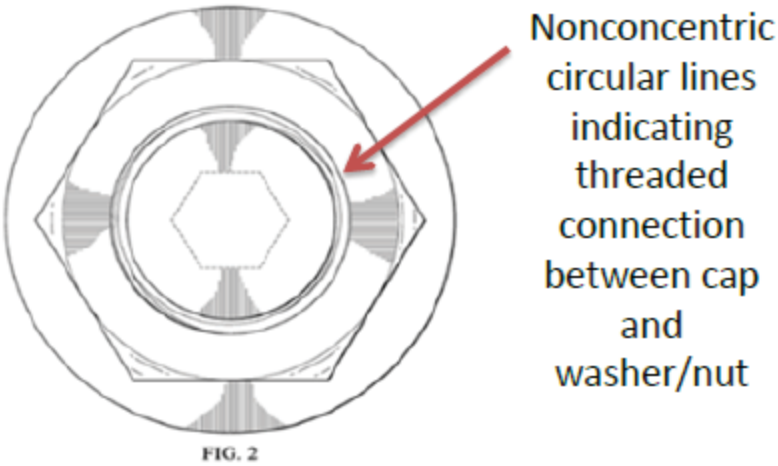


FIGURE 8—Markings On Surface Of The Heads Of The SDWS223112DB And The SDWS22512DBB, Combined With The Hex Head Washer

46. The '701 Patent claims a threaded connection between the cap and washer/nut elements, which is absent in the Accused Products.



47. The angles and corners in the figures of the ’701 Patent are sharp and squared, whereas the accused Hex Head Washer has softer, curved angles, as shown in FIG. 9.

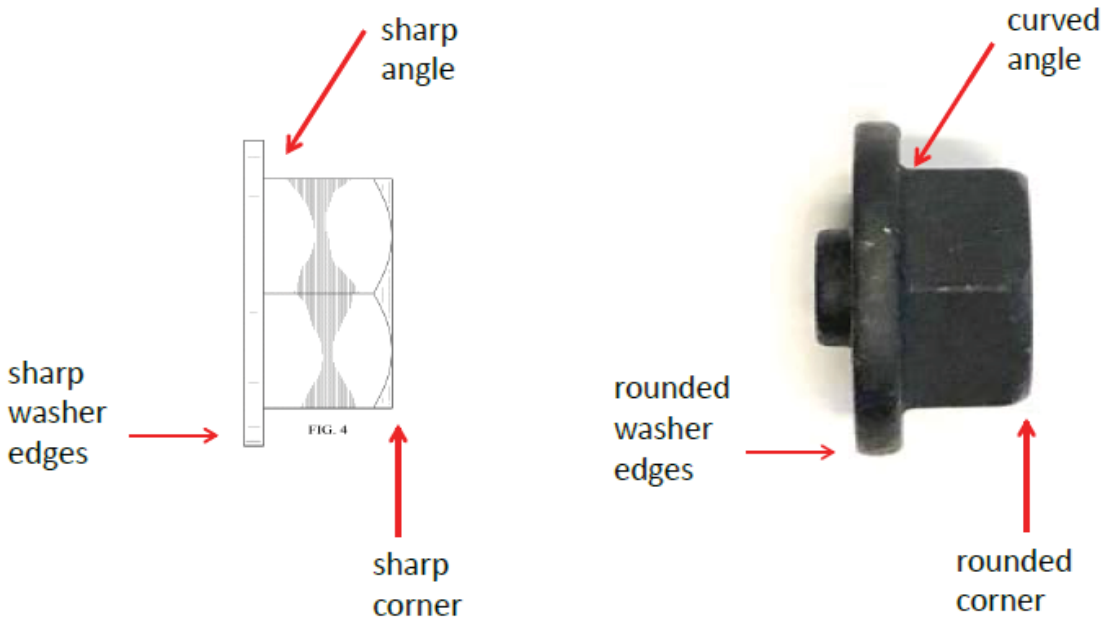


FIGURE 9—Comparison Of Figure 4 Of The 701 Patent And The Accused Hex Head Washer

48. The ’701 Patent claims a perfectly flat bearing surface on the underside of the washer/nut element. In contrast, the protrusion on the base of the accused Hex Head Washer is visible when the Hex Head Washer is viewed alone, and in combination with the Structural Wood Screw, as shown in FIGS. 10 and 11 below.

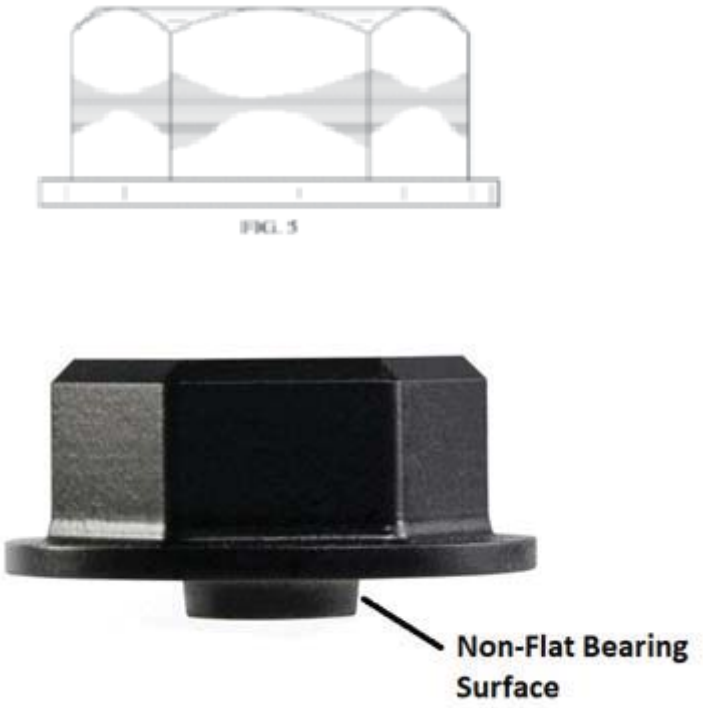


FIGURE 10—Comparison of Flat Bearing Surface of Figure 5 of the ’701 Patent To The Non-Flat Bearing Surface Of Accused Hex Head Washer

FIGURE 11—Image Of Hex Head Washer Combined With Structural Wood Screw, Showing Visibility Of Non-Flat Bearing Surface

49. As shown in Figure 11, above, and 12, below, when combined, the accused Hex Head Washer has an elongated screw sticking out of it.

a. When combined with SDWS223112DB (the 3.5" Structural Wood Screw), 2.91 inches of the shaft of the screw extend from the bottom of the Hex Head Washer's flange surface.

b. When combined with SDWS22512DBB (the 5.5" Structural Wood Screw), 4.89 inches of the shaft of the screw extend from the bottom of the Hex Head Washer's flange surface.

FIGURE 12—Image Of Hex Head Washer Combined With Both Commercially Available Structural Wood Screws, SDWS223112DB (3.5") and SDWS22512DBB (5.5")

50. In his report Mr. Hatch ignores the shaft of the accused screws and fails to include the entire Accused Products in all of his photos comparing the

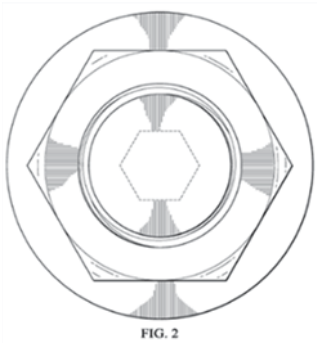
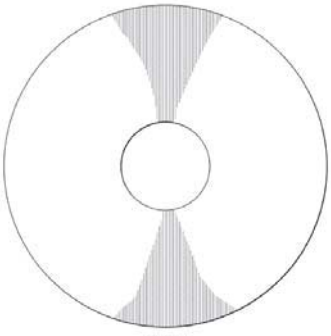
Accused Products to the figures of the ’701 Patent. When shown in full, the Accused Products, when combined, appear substantially different in overall appearance than the claimed design, as shown in Table 2, below.

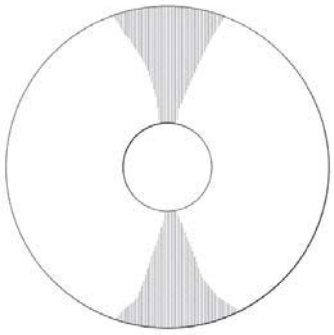
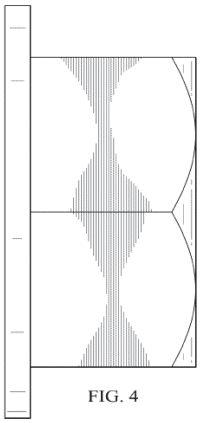
51. The shaft of the screw cannot be disregarded for comparison to the figures in the ’701 design patent.

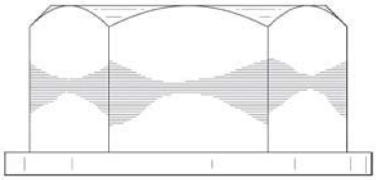
52. In the table below, I have included the figures of the’701 Patent, along with images of the Accused Products (shown separately as they appear at the point of purchase, and in combination).

Table 2—Comparison Of Figure 1 Of The Claimed Design To Accused Products

Claim	Accused Products
1. The ornamental design for simulated bolted hardware, as shown and described.  FIG. 1	

Claim	Accused Products
 FIG. 2	  
 FIG. 3	  

Claim	Accused Products
 FIG. 3	
 FIG. 4	

Claim	Accused Products
	
 FIG. 5	

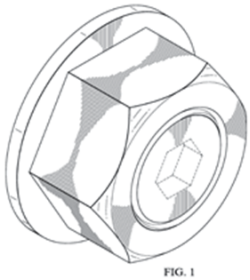
53. I disagree with Hatch that the differences between the images in the ’701 patent and the Accused Products are minimal.

54. In the eyes of an ordinary observer, all of these are significant differences that affect the overall visual appearance of the Accused Products, rendering them substantially dissimilar to the illustrations of the ’701 Patent.

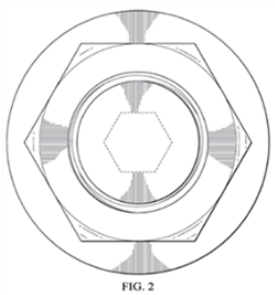
B. **To An Ordinary Observer Familiar With The Prior Art, The Accused Products Are Substantially Different Than The Illustrations In The ’701 Patent.**

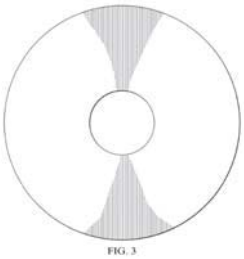
55. I disagree with Mr. Hatch’s opinion in his expert report that the ’701 Patent is significantly distinct from any of the prior art referenced in Simpson’s Invalidity Contentions of 11/5/2018. For example, Exhibits A7 through A12 and A19 through A25, among other exhibits that depict a flanged hex nut, are significantly identical to the images in the ’701 patent. In the table below are images of those prior art references, which show they share substantial similarities with the claimed design.

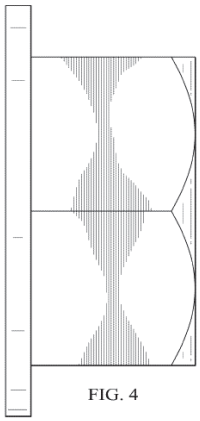
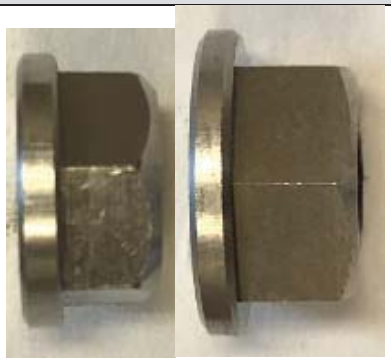
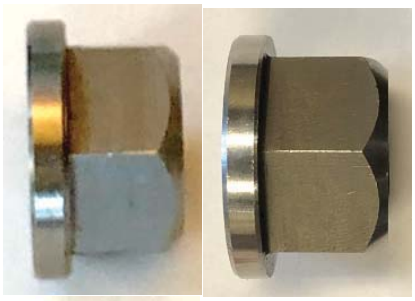
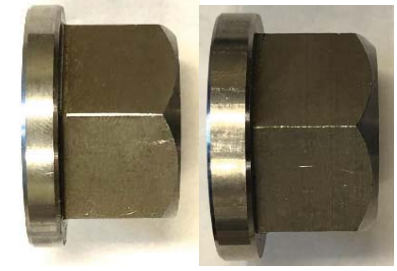
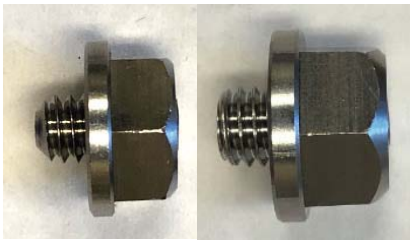
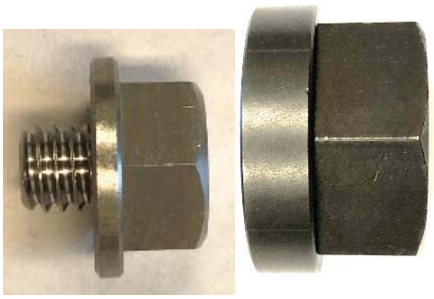
TABLE 3—Comparison of Claimed Design to Prior Art References and the Accused Products

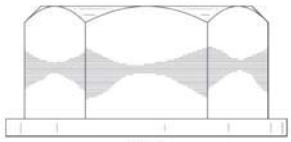
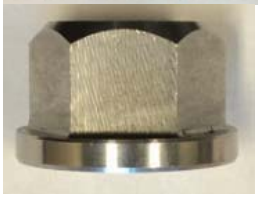
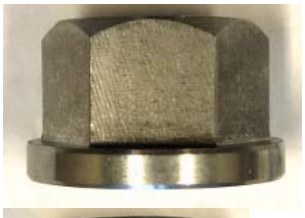
'701 Patent	Prior Art[4]	Accused Products
 FIG. 1		

4 Simpson Invalidity Contentions Exhibits A-7 through A-12; A-19 through A-21; A-23 - A-24

’701 Patent	Prior Art[4]	Accused Products
 FIG. 2		 

’701 Patent	Prior Art[4]	Accused Products
		

'701 Patent	Prior Art	Accused Products
 FIG. 4	    	  

'701 Patent	Prior Art	Accused Products
		
 FIG. 5	     	 

'701 Patent	Prior Art	Accused Products
	    	

56. The prior art displayed in Table 3, above, share substantial similarities with the claimed design. All are hex shaped washer/nut members. They have sharp corners and angles, a flat bearing surface, and a flat upper surface, with no identifying markings. They have internal threads to accept a threaded "cap". The overall appearance of these prior art references is far more similar to the claimed design than the Accused Products.

XIV. THE PRODUCTS ARE NOT CONFUSING AT THE POINT OF PURCHASE

57. I disagree with Hatch's opinion that there is "confusion at place of purchase" (sic). Hatch Report at p. 26

58. In comparing OZCO's purported commercial embodiment of the '701 Patent to the Accused Products at the point of purchase, the Hex Head Washer has a significantly different appearance than OZCO's commercial embodiment.

59. OZCO's product includes an internally threaded washer/nut with a corresponding threaded cap, as shown in FIG. 13.

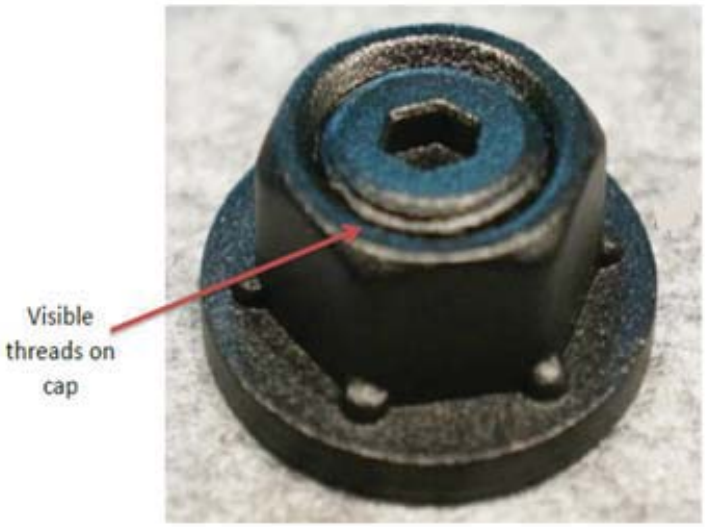


FIGURE 13—Internal Threads Visible On Ozco Product

60. Additionally, the OZCO product has the manufacturer's name ("OZCO") clearly embossed on the flat washer bearing surface, as shown in FIG. 14.

FIGURE 14—Bearing Surface Displaying "OZCO"

61. The OZCO product incorporates highly visible simulated weld nubs at the base of the hexagonal portion (FIG. 16).

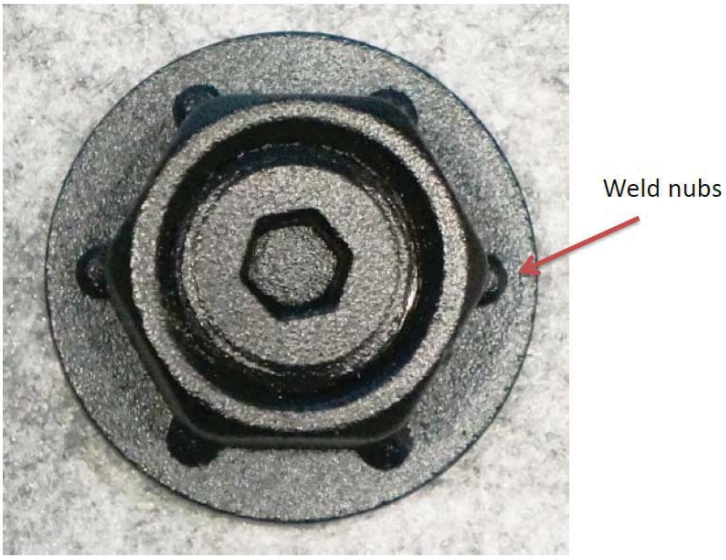


FIGURE 15—Weld Nubs On OZCO Product

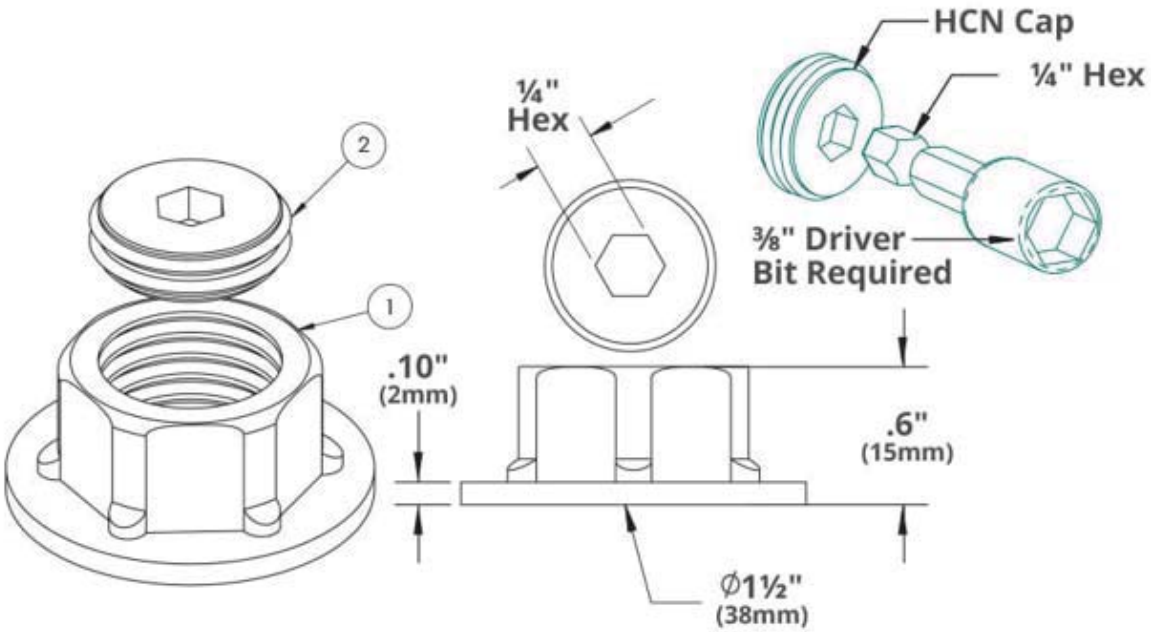


FIGURE 16—Views Of The Commercialized Ozco Hex Cap Nut[5]

62. In contrast to the OZCO Product, the bearing surface of the Simpson Hex Head Washer is not flat but instead includes a cylindrical protrusion that is clearly visible at the point of purchase. Additionally, the Simpson Hex Head Washer lacks OZCO's simulated weld nubs and internal threads. These differences are readily observable at the point of purchase. See FIGS. 17-20.

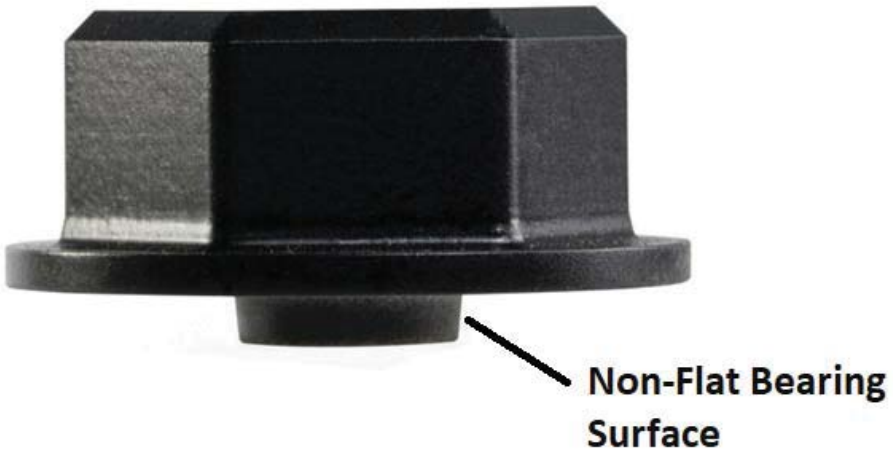


FIGURE 17—Simpson Outdoor Accents Hex Washer Side View

[5] From https://ozcobp.com/product/hex-cap-nut/

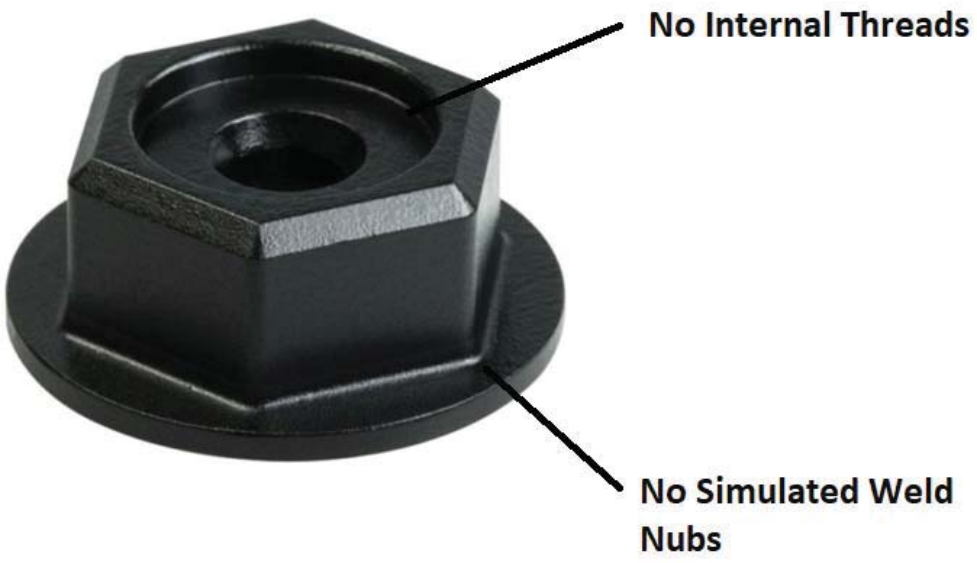


FIGURE 18—Simpson Outdoor Accents Hex Washer Perspective View

63. The two components comprising the Accused Products, Simpson's Outdoor Accents Hex Head Washers and Structural Wood Screws, are purchased or supplied separately.

64. The packaging for Simpson's Outdoor Accents (FIGS. 19-20) also clearly illustrates the shape and usage of the Outdoor Accents Hex Head Washer such that an ordinary observer making a purchase would immediately note the differences discussed above. Simpson's Hex Head Washer is sold separately from any fastener or connector, in a clear clamshell that shows both sides of the product.

FIGURE 19—Simpson's Outdoor Accents Hex Washer Packaging

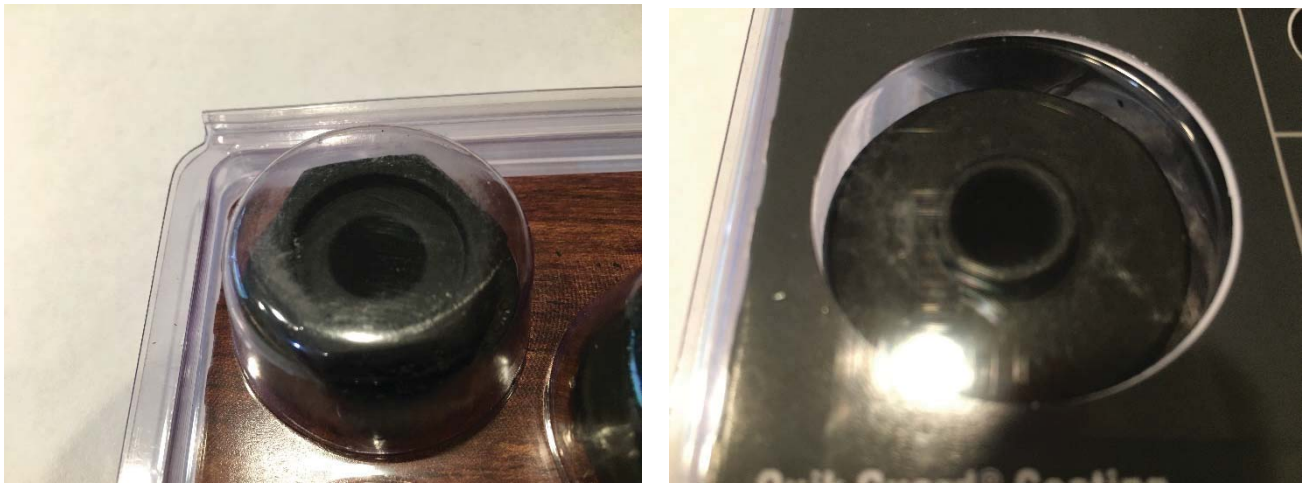


FIGURE 20—Simpson's Outdoor Accents Hex Head Washer—Obverse And Reverse Sides

65. As illustrated in FIGS. 17-20, the absence of internal threads and simulated weld nubs, and the presence of the cylindrical protrusion on the non-flat bearing surface are easily visible to an ordinary observer. In addition, the packaging is clearly and unmistakably marked as a Simpson product.

66. The accused Hex Head Washer has a hole through it. There is no threaded cap, nor is the screw (which Mr. Hatch incorrectly asserts is a "cap") included in the packaging with the Hex Head Washer.

67. The Hex Head Washer is not close to looking flat on the upper surface until the screw is installed through it and into a workpiece—well after the purchasing decision has been made. Even then the identification markings on the upper surface of the screw head do not give the appearance of a flat surface.

68. OZCO's internally threaded washer/nut and externally threaded cap would be clearly distinguishable from the unthreaded Hex Head Washer and separately sold Structural Wood Screw at the time of purchase.

69. It is my opinion that an ordinary observer would not view the designs of OZCO's washer/nut and Simpson's Outdoor Accents Hex Head Washer and Structural Wood Screw as substantially the same so as to be deceived because of these substantial differences in appearance.

XV. [redacted]

70. [redacted]

71. [redacted]

[redacted]

72. [redacted]

73. [redacted]

XVI. SUMMARY OF CONCLUSIONS

74. OZCO's '998 patent is not infringed directly (literally) or indirectly (inducement or contributory) by Accused Products because the Accused Products lacks the claimed "cap". There is no cap that is separate from the head of the screw, and there is no "closed cover," even if the head of the screw could also constitute the cap.

75. OZCO's '701 design patent is not infringed by the Accused Products because the Accused Products are substantially different in overall appearance from the claimed design. Among the reasons why are:

(a) the protrusion of Simpson's Structural Wood Screw through the Hex Head Washer has an appearance that is significantly different than the illustrations in Ozco's design patent;

(b) Simpson's Hex Head Washer has a cylindrical protrusion extending from the bottom surface, and is not flat like the illustrations of the '701 Patent; and

(c) Simpson's Structural Wood Screw and Hex Head Washer include softer, rounded edges than depicted in the '701 Patent, and several substantial identifying markings on their surface, which make them appear substantially different than the '701 illustrations.

76. The outward appearance of the Hex Head Washer is substantially different than Ozco's commercial product due to Simpson's lack of a flat bearing surface, absence of simulated weld nubs, unthreaded bore and lack of a cap element. An ordinary observer would therefore not be deceived by confusing the Simpson product to be OZCO product.

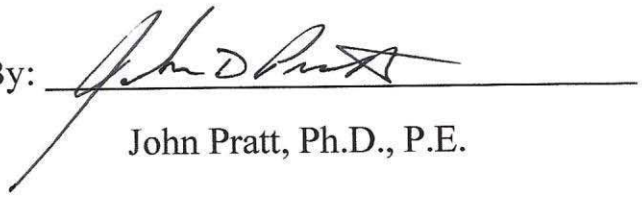
77. The packaging clearly identifies the Accused Products as being Simpson Outdoor Accents hardware, not OZCO's product.

XVII. DECLARATION

78. For all the opinions expressed in this report I have relied upon exhibits, deposition testimony, prosecution history, product information and personal experience created, or referenced, in part, in this legal proceeding. I reserve the right to amend or supplement my analysis and conclusions should new information become available.

79. I declare under penalty of perjury that the foregoing is true and correct.

Dated: July 17, 2019

By: 

John Pratt, Ph.D., P.E.

EXHIBIT 1

Curriculum Vitae

Professional Summary

Dr. John Pratt, as Principal of Argos Engineering, provides litigation consulting in the areas of mechanisms, latches and fasteners.

Before retiring as an aerospace industry executive in 2005, Dr. Pratt co-invented and led the development of the post-9/11 secure (terrorist-proof) cockpit door decompression latches now installed on half the world's fleet of transport aircraft. Previously Dr. Pratt invented and commercialized the first viable blind fastening system for laminated composites. After 30 years, that system (Monogram Aerospace Fasteners' Composi-Lok©) remains one of the most-used structural blind fasteners for composite airframe assembly. Recent litigation consulting projects have included defective kitchen appliances, vehicle tonneau covers, aircraft engine cylinder head bolt failure analysis, helicopter and aircraft accidents, and various patent infringement cases. Recent fastener development activities include blind bolt, blind temporary clamp and shear pin development for robotic assembly of aircraft structures.

Expertise

- Fasteners
- Latching Mechanisms
- Aircraft Rapid Decompression
- Engineering, Structural
- Kinematics Analysis
- Mechanisms
- Products Liability
- Wind Load Analysis

Education

Year	College or University	Degree
2001	University of California, Irvine	Ph.D. - Civil Engineering—Structural Mechanics (Airframe Joint Behavior)
1998	California State University, Fullerton	M.S.M.E.
1996	California State University, Fullerton	B.S.M.E.

Litigation Support Experience

Four Year Rule 26 Disclosure: Comprehensive Deposition and Trial Testimony Through 7/17/2019

Type of Matter:	Patent Infringement
Venue:	Central District of California Case # 2:14-CV-05934-ODW-RZ
Law Firm:	ARDENT Law Group
Case Name:	Zipshade v Lowes et al
Services Provided:	Lit. Consulting, Expert Witness, **Deposition (5/17/2016)**
Disposition:	Closed
Date:	Feb. 2016-Closed

Litigation Support Experience (continued)

Type of Matter:	Products Liability
Venue:	Calif. Superior Court, San Diego County Case No. 37-2015-00027916
Law Firm:	Meyers Fozi LLP
Case Name:	Morin v Sunrise Medical et al
Services Provided:	Lit. Consulting, **Deposition (3/4/2017 & 3/16/2017), Trial (6/4/2017)**
Disposition:	Closed
Date:	Jan. 2016-June 2017

Type of Matter:	Patent Infringement
Venue:	EDTX, Marshall Division Case # 2:16-cv-1417
Law Firm:	Kilpatrick Townsend Stockton
Case Name:	B/E Aerospace v Zodiac Aerospace, et al
Services Provided:	Lit. Consulting, Expert Witness, **Deposition (3/28/2017)**
Disposition:	Active
Date:	February 2017-Present

Type of Matter:	Class Action, Products Liability
Venue:	NDOH Eastern Division Case # 1:16-cv-001114
Law Firm:	Greg Coleman Law
Case Name:	Chapman et al v Tristar Products, Inc.
Services Provided:	Lit. Consulting, Expert Witness, **Deposition (4/3/2017),Trial (7/10/2017)**
Disposition:	Closed
Date:	Nov. 2016-July 2017

Type of Matter:	Patent Infringement
Venue:	MDGA Eastern Case No. 5:13-CV-306-LJA
Law Firm:	Kilpatrick Thompson & Stockton, LLP
Case Name:	YKK Corp. and YKK USA v Velcro USA and Velcro Canada
Services Provided:	Lit. Consulting, Expert Witness, **Deposition (5/16/2017), Trial (11/14-15/2017)**
Disposition:	Closed
Date:	Late. 2013-Nov. 2017

Type of Matter:	Products Liability
Venue:	District Court, Clark County, Nevada, Case No. A-15-719356-C
Law Firm:	Richard Harris Law
Case Name:	Lionel Glenn Liborio, Jr., v NP Red Rock et al
Services Provided:	Lit. Consulting, Inspection, Expert Witness, **Deposition (11/06/2017)**
Disposition:	Settled
Date:	May 2017-June, 2018

Type of Matter:	Products Liability (Pressure Cooker)
Venue:	Northern District of Georgia Case No. 2:16-cv-00263-RWS
Law Firm:	Conley Griggs Parton
Case Name:	DLP v Tristar
Services Provided:	Lit. Consulting, Inspection, Expert Witness, **Deposition (4/24/2018)**
Disposition:	Active
Date:	June 2017-Present

Litigation Support Experience (continued)

Type of Matter:	Products Liability (Pressure Cooker)
Venue:	Northern District of Georgia Case No. 1:16-cv-03030-TCB
Law Firm:	Conley Griggs Parton
Case Name:	Allen et al v Tristar
Services Provided:	Lit. Consulting, Inspection, Expert Witness, **Deposition (4/25/2018)**
Disposition:	Active
Date:	June 2017-Present

Type of Matter:	Patent Infringement (Portable Cordless Gas Spring Nailers)
Venue:	USITC Investigation No. 337-TA-1082
Law Firm:	Vedder-Price
Case Name:	Kyocera Senco v Hitachi Koki
Services Provided:	Lit. Consulting, Inspection, Expert Witness, **Depo. (7/19/2018), ITC Hearing (11/29—11/30/2018)**
Disposition:	Active
Date:	December 2017-Present

Type of Matter:	Products Liability (Pressure Cooker)
Venue:	Middle District of Georgia Case No. 7:17-cv-0066-HL
Law Firm:	Morgan and Morgan
Case Name:	Samantha Williams v Tristar
Services Provided:	Lit. Consulting, Inspection, Expert Witness, **Deposition (8/6/2018)**
Disposition:	Active
Date:	September 2017-Present

Type of Matter:	Defective Product (Diesel Engine Connecting Rod Bolts)
Venue:	MN District Court, Anoka County 10th Judicial District CASE: 02-cv-16-6089
Law Firm:	Henshaw & Culbertson
Case Name:	Reviva v Class-C Components and Elgin Fastener Group
Services Provided:	Lit. Consulting, Inspection, Expert Witness, **Trial (11/1/2018)**
Disposition:	Closed
Date:	September 2017-Nov. 2018

Type of Matter:	Products Liability (Pressure Cooker)
Venue:	District of Nevada Case No. 2:17-cv-02869-PAL
Law Firm:	Cogburn Law
Case Name:	Tawndra Heath v Tristar
Services Provided:	Lit. Consulting, Inspection, Expert Witness, **Deposition (1/10/2019)**
Disposition:	Active
Date:	September 2017-Present

Type of Matter:	Products Liability (Pressure Cooker)
Venue:	Northern District of Mississippi Case No. 1:18-cv-00027-SA-DAS
Law Firm:	Goldasich Law
Case Name:	Shiekeal Edwards v Tristar
Services Provided:	Lit. Consulting, Inspection, Expert Witness, **Deposition (2/27/2019)**
Disposition:	Active
Date:	October 2018-Present

Litigation Support Experience (continued)

Type of Matter:	Products Liability (Pressure Cooker)
Venue:	Northern District of Mississippi Case No. 1:18-cv-00027-SA-DAS
Law Firm:	Goldasich Law
Case Name:	Shiekeal Edwards v Tristar
Services Provided:	Lit. Consulting, Inspection, Expert Witness, **Deposition (2/27/2019)**
Disposition:	Active
Date:	October 2018-Present

Professional Experience

From:	June 2005
To:	Present
Organization:	Argos Engineering, Laguna Niguel, CA
Title:	Principal
Summary:	Dr. Pratt provides litigation consulting including deposition and trial testimony, expert reports and failure analysis. Dr. Pratt has relationships with local laboratories for in-depth mechanical testing and metallurgical analysis as needed. He is currently involved in testing exploding kitchen appliances such as Panini makers, blenders and pressure cookers. He also offers litigation consulting and expert witness services in the following areas:

- Fasteners and mechanically-fastened joint failures.
- Latching mechanisms and latched joint failures, particularly aircraft structural latches.
- Wind-induced building damage.
- Mechanism kinematics and failure analysis.
- Metal forming (hot and cold forging) and processing (heat treatment, finishing).

From:	August 2000
To:	June 2005
Organization:	Hartwell Corporation, Placentia, CA
Title:	Vice President, Engineering
Summary:	Dr. Pratt oversaw all new product development and engineering, including development of engine nacelle latches for the Airbus A380, A318, A400M, B787 and RJ700/900 Series aircraft. He also co-invented and led the development of the post-9/11 secure cockpit door decompression mechanisms presently in use on half of the world's fleet of commercial transport aircraft.

From:	March 1988
To:	August 2000
Organization:	Textron Aerospace Fasteners, Santa Ana, CA
Title:	Vice President, Research and Development (Started as Director R&D)
Summary:	Dr. Pratt led the development of various solid shank and blind fastener systems. Founded Textron Sports Technology operation within TAF in 1995 and led that group until its relocation to a commercial Textron division in 1999.

Professional Experience (continued)

From:	February 1979
To:	March 1988
Organization:	Monogram Aerospace Fasteners, Los Angeles, CA
Title:	Engineering Manager
Summary:	Dr. Pratt led the product development and standardization efforts. Invented Composi-Lok (I & II), Visu-Lok II and other product lines, accounting for sales in excess of $250 million since 1983. Represented company at MIL-HDBK-5, NASC and other standardization activities.

From:	August 1969
To:	February 1979
Organization:	Olympic Fastening Systems, Downey, CA
Title:	Sr. Project Engineer, R&D (Started as Drafter Trainee)
Summary:	Product development and manufacturing engineering activities, including fastener installation tooling and progressive header tooling. Designed hydraulic-pneumatic installation tools for Olympic's and competitor's product lines.

Professional Affiliations, Achievements & Awards

- Professional Engineering License (Mechanical Engineering), CA, 1979
- National Academy of Forensic Engineers (NAFE)
- American Academy of Forensic Sciences (AAFS)
- National Society of Professional Engineers (NSPE/CSPE)
- American Society of Mechanical Engineers (ASME)
- American Society of Civil Engineers (ASCE)
- American Society of Metals (ASM)

Patents & Publications

Patents

4,376,604	4,548,533	4,747,204	5,046,348	5,131,107	5,378,098	5,938,384	6,261,042	7,252,311	8,322,015	8,517,649	9,212,678
4,451,189	4,659,271	4,752,169	5,052,870	5,152,648	5,620,287	5,941,539	6,866,226	7,255,376	8,348,566	8,608,417	9,284,971
4,457,652	4,659,272	4,767,248	5,056,973	5,333,980	5,692,865	5,957,642	6,866,227	7,578,475	8,398,345	8,888,425	9,464,654
4,537,542	4,681,494	4,967,463	5,066,179	5,354,160	5,884,923	6,171,038	7,131,672	7,857,563	8,511,952	8,961,086	9,903,403

Publications:

1. "Fastening of Advanced Composites", NASA conference, 1983, Seattle, WA.
2. "Testing and Analysis of Mechanically-Fastened Lap Joints", Ph.D. Dissertation, John D. Pratt (2001)
3. "Analytical Modeling of Bolted Lap Joint Load-Elongation Behavior", *Journal of Aerospace Engineering*, January 2002 (ASCE)
4. "Comparative Load-Elongation Behavior of Single-Bolted and Dual-Bolted Lap Joints", *Journal of Aerospace Engineering*, April 2002 (ASCE)
5. "The Influence of Conical Head Geometry on the Slip Resistance of Bolted Joints", *Journal of Aerospace Engineering*, October 2002 (ASCE)
6. "Rapid Decompression of Pressurized Aircraft", *Journal of Failure Analysis and Prevention*, December, 2006 (ASM)
7. "Allowables-Based Flow Curves for Nonlinear Finite-Element Analysis", *Journal of Failure Analysis and Prevention*, April, 2007 (ASM)

Technical Presentations

- "Fastening of Advanced Composites", NASA conference, 1983, Seattle, WA.
- "Analysis of Wind Damage to Mountain Residence", SFES Seminar, March 1, 2008, Yosemite CA
- "A Summary of Forensic Engineering Cases", SFES Seminar, Jan., 11, 2009, St. Helena, CA
- "Rapid Decompression and Flightdeck Security", SFES Seminar, Oct. 2-3, 2010, Napa, CA

EXHIBIT 2

Documents and Things reviewed

EXHIBIT 2

1) 2nd Amended Complaint
2) US D798701 Patent File Wrapper
3) US 9,957,998 Patent File Wrapper
4) Answer to 2nd Amend Complaint & Counterclaims
5) Answer to Counterclaims
6) ECF 87 Claim Construction Order-8367908v1
7) IPR Decision
8) Ozco's 2nd Amend Infringement Contentions
9) Ozco's Claim Construction Opening Brief
10) Ozco's Claim Construction Reply
11) Ozco's IPR Response
12) Ozco's Motion to Amend Infringement Contentions - Declaration of Paul Storm
13) Ozco's Motion to Amend Infringement Contentions - Reply
14) Ozco's Motion to Amend Infringement Contentions
15) Ozco's Response to Plaintiff’s Fir Set of Interrogatories - set 1
16) Ozco's Request for Production Response - set 1
17) Simpson's Claim Construction Brief
18) Simpson's Invalidity Contentions
19) Simpson's IPR Petition
20) Simpson's Opposition to Motion to Amend Infringement Contentions – Decl.
21) Simpson's Opposition to Motion to Amend Infringement Contentions
22) Simpson's RESPONSE TO FIRST SET OF ADMISSIONS - set 1
23) Simpson's RESPONSE TO FIRST SET OF ADMISSIONS - set 2
24) Simpson's Response to Defendant’s First Set of Interrogatories - set 1
25) Simpson's Response to Defendant’s First Set of Interrogatories - set 2
26) Simpson's RESPONSE TO DEFENDANT’S FIRST SET OF REQUESTS FOR PRODUCTION OF DOCUMENTS - set 1
27) Simpson's RESPONSE TO DEFENDANT’S FIRST SET OF REQUESTS FOR PRODUCTION OF DOCUMENTS - set 2
28) US Patent D798701
29) US Patent 9,957,998
30) US20120255189A1

Exhibit K

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

SIMPSON STRONG-TIE COMPANY INC., Plaintiff, vs. OZ-POST INTERNATIONAL, LLC dba OZCO BUILDING PRODUCTS, Defendant.	NO. 3:18-CV-0118-WHO

ATTORNEYS' EYES ONLY SUBJECT TO PROTECTIVE ORDER

VIDEOTAPED DEPOSITION OF CHRIS PATERSON

San Francisco, California

Friday, March 8, 2019

Reported by: Ashley Soevyn, CSR No. 12019

Job No. 23060

Pages 1 - 155

Page 110

galvanizing process as well?
A Well, if we know it's -- if we already know it's steel, then we would know about the galvanizing process for that steel.
Q Is that on the assumption that that steel was galvanized pre fabrication?
A For this product, the washer -- the hex-head washer would not -- you would not make it out of pre fabricated, pre galvanized steel. So it wouldn't have been part of that decision.
Q Okay. Thanks. On these last three images, are you familiar with what we're looking at here? If you can just describe what are these pictures.
A I don't know for sure. I don't recall seeing these before. They have been various design alternatives for consideration, but I wasn't directly involved in making that decision or testing them or...
Q Okay. Would you agree that this first image is an image of a hex-head washer with a screw?
A It looks to me like it's a cross-section of a hex-head washer, a screw, a steel side plate, and a wood member.
Q Okay. Thank you. Can you tell if that

Page 111

screw is a SDWS?
A I don't know what that screw is. It looks similar to a SDWS.
MR. LEONARD: I think that's all I have for this exhibit. Thank you.
THE REPORTER: Exhibit 81.
(Exhibit 81 marked for identification.)
BY MR. LEONARD:
Q Are you familiar with this document?
A No.
Q I see your name is not listed here, but did you happen to attend?
A I can't recall. I don't think I attended this.
Q So if you see under launch plans, May 1, 2016, it says, "Production issues resolved, new HDG vendor dips." What does that phrase, "new HDG vendor dips" mean to you?
A I don't know.
Q Does HDG in this context mean hot-dipped galvanized?
MS. MINOR: Objection. Lacks foundation, calls for speculation.
THE WITNESS: Typically, HDG would mean hot-dipped galvanized, yes.

Page 112

BY MR. LEONARD:
Q Okay. And I see that these new HDG vendor dips apparently make part warping much less of an issue. Are you familiar with that?
A No.
Q Okay. Thank you. If you could turn to the next page, please, 0365. In the middle of that page in the engineering section, there is a parenthesis that says, "Ask Paul and/or Chris who can double-check and stamp."
Does that refer to you, Mr. Paterson?
MS. MINOR: Objection. Lacks foundation, calls for speculation.
THE WITNESS: Probably, yes.
BY MR. LEONARD:
Q Okay. Are you aware of this testing that is being discussed here? I'm referring to the SDWS screw shear testing.
A No.
Q That's all I have for this exhibit.
THE REPORTER: Exhibit 82.
(Exhibit 82 marked for identification.)
BY MR. LEONARD:
Q I'd just like to direct your attention to the second page. There is an e-mail from

Page 113

Mr. Murphy, and I see this line, "Bob and I met with Chris Paterson last week for recommendations on what to add to the PSS. Chris said you are a good resource for parts being manufactured by vendors."
What does this mean to you, this line here?
A Leland Manhart is -- is responsible for a lot of our component parts that are manufactured in Asia, and he's very familiar with the market and the products and testing, and that means that Leland would be a good go-to person for questions associated with the manufacturing by vendors.
Q Okay. Thank you. Now, I'm looking at bullet No. 4. "The nuts will come in a plastic tray with eight nuts to a tray that is put into a box. This will be the selling unit."
Are you familiar with this line or with this decision?
MS. MINOR: Objection. Vague and ambiguous.
THE WITNESS: I'm familiar with the line, but I wasn't involved in the decision.
BY MR. LEONARD:
Q So do you know if the nut, the hex-head washer, and screw were ever sold together?

Page 114

A I'm not aware of it ever being sold together, not that I'm aware of.
Q So to your knowledge, the hex-head washers were never sold in the same package with the screws?
A Yes.
Q That's all I have with this exhibit.
MS. MINOR: Making ground.
MR. LEONARD: Were you worried about my stack?
MS. MINOR: No, I've seen worse.
MR. LEONARD: Thank you for your patience both, everyone here.
THE REPORTER: No problem. Exhibit 83.
(Exhibit 83 marked for identification.)
BY MR. LEONARD:
Q So now we're looking at Exhibit 83, and I see in that I guess is the second e-mail, it looks like you might have been cc'ed. Do you see this e-mail?
A Yes.
Q From Otto Ho. I'm looking at No. 4. For the material are specification requests C1008 to C1018 carbon steel. I think you've already answered this, but could you just confirm. Did you have any

Page 115

role in the selection of steel for this hex-head washer product?
A No.
Q So what is this document telling us, this e-mail?
MS. MINOR: Objection. Vague and ambiguous, lacks foundation.
THE WITNESS: It looks like this is a letter asking questions about the production of this component part from the vendor to us, as far as alternatives to the original design.
BY MR. LEONARD:
Q Okay. Thank you. Let's go to the next page. Again, it looks like you're cc'ed. That e-mail also relates to head stamping issues. Do you have any information you would like to share with me about the head stamping issues that are discussed?
MS. MINOR: Are we talking about the top e-mail?
MR. LEONARD: The top e-mail.
THE WITNESS: No.
BY MR. LEONARD:
Q Let's go to the e-mail just below it. Again, you're cc'ed. So I'll direct your attention to the language, "Bob Bouchet will be sending a

Page 116

revised PSS to the group most likely tomorrow."
What is the group referenced there?
MS. MINOR: Objection. Lacks foundation, calls for speculation.
THE WITNESS: From my experience and the way it's worded here, I would think that he's talking about the same group that is cc'ed and this e-mail is to.
BY MR. LEONARD:
Q Okay. That makes sense. Can you explain or hazard a guess as to why you're included in this e-mail chain?
A I can't remember.
Q Were you involved in the PSS process?
A I can't remember that either.
Q Okay. That's all I have for this exhibit.
THE REPORTER: Exhibit 84.
(Exhibit 84 marked for identification.)
BY MR. LEONARD:
Q So this e-mail was written to you along with some other individuals, and it discusses various things. We'll just first talk about that first line, a few dimension changes. What did you know about getting product dimensions together for

Page 117

the STN22?
A If I remember right, it was -- there was a -- the new vendor wanted to change some of the dimensions or tolerances on this part and we had to discuss it as a product change.
Q Did you have any input with respect to the dimension changes?
A No.
Q Okay. So now to the next sentence, "Also, quality raised a few questions on tolerances." Do you know anything about quality's concerns or questions regarding tolerances?
A Just a little bit. You know, I was again on the periphery of the decision-making process. I did attend some of these meetings and probably likely this one just to -- more as an observer and one of the more senior engineers on the project, but I pretty much left the decisions up to the actual designers and product managers.
Q So to the next sentence, would you agree that those last few words which say, "critical part of the entire system," would you agree that those words refer to the STN22?
MS. MINOR: Objection. Lacks foundation, calls for speculation.

I, the undersigned, a Certified Shorthand Reporter of the State of California, do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that any witnesses in the foregoing proceedings, prior to testifying, were duly sworn; that a record of the proceedings was made by me using machine shorthand, which was thereafter transcribed under my direction; further, that the foregoing is a true record of the testimony given.

I further certify I am neither financially interested in the action nor a relative or employee of any attorney or party to this action.

IN WITNESS WHEREOF, I have this date subscribed my name.

Dated: _____

_____
ASHLEY SOEVYN
CSR No. 12019

Exhibit L

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

SIMPSON STRONG-TIE COMPANY INC., Plaintiff, vs. OZ-POST INTERNATIONAL, LLC dba OZCO BUILDING PRODUCTS, Defendant.	NO. 3:18-CV-0118-WHO

ATTORNEYS' EYES ONLY

SUBJECT TO PROTECTIVE ORDER

VIDEOTAPED DEPOSITION OF BOB BOUCHET

San Francisco, California

Thursday, January 23, 2019

Reported by: Ashley Soevyn, CSR No. 12019

Job No. 22853

Pages 1 - 203

Page 98

product would be at least this strong if not stronger; is that fair?
A That's fair, yeah.
Q Did you do any testing of prototypes made that looked like Exhibit 20?
A No.
Q Did you do any mathematical modeling or calculations about it even if you didn't have a physical prototype?
A No.
Q The next line in your draft e-mail says "mill the hex on the prototype so they are good for show and tell as well as testing." Do you see that?
A Yes.
Q Who is going to do that milling?
A I don't know.
Q The next one says "include the SDWD shoulder even though the amount needed would be very subtle." Is that the wood screw? Is that supposed to refer to the wood screw shoulder?
A Yes. On that screw, if you look at Exhibit 18, the drawing of the screw down below, you can see right under the head of the screw there's an angled portion maybe a quarter inch along the shank, which would need to fit into the STN22, would need

Page 99

to accommodate that, and that's what I'm talking about there.
Q Okay. That's in this drawing in Figure 18, the one on the right-hand side that's got the end of the screw all the way to the head, there is a portion that has an angle that says "55 to 45 degrees." Is that the part that you're talking about?
A Correct.
Q And that's the SDWD shoulder referred to in your draft e-mail? That's the shoulder of the screw?
A Yeah, I think that's what I'm talking about in the e-mail here.
Q Okay. Then below that, it says "set the protrusion to go 0.250 inches beyond the nut to maintain the patent." And that protrusion that you're talking about is essentially looking at Exhibit 20 how much the -- there is Exhibit 20, the picture.
A Yes.
Q It's setting this shear tube nut to project a quarter of an inch beyond the face of the washer part of this hex washer combo?
A I would assume that's what it means. I

Page 100

don't recall what I was thinking when I typed this, but I don't know what other protrusion it might be referring to. Okay.
MR. STORM: I will give you another drawing to provide some context. Now we have Exhibit 21.
(Exhibit 21 marked for identification.)
BY MR. STORM:
Q Would you agree that Exhibit 21 is a CAD drawing of the shear tube nut in essentially its final form?
A Yeah, without a careful examination of all the dimensions, but, yeah, it seems like a reasonable assumption.
Q If you look at the figure on the bottom left?
A Bottom left.
Q This would indicate that the shear tube nut portion extends past the face of the washer nut combination .125 inches?
A Correct.
Q And the draft e-mail in Exhibit 17 would indicate that that dimension would be .250. Is that a fair interpretation?
A Yes. It would indicate that at the time

Page 101

this draft e-mail was written I was thinking .25 and what later became, looks like about .125.
Q Did you ever do any testing on a physical prototype that had a protrusion of .250?
A I don't recall.
Q Do you recall testing any physical samples of the shear tube nut that were configured different than what is shown on Exhibit 21?
A Yes.
Q How many different configurations other than the one shown in Exhibit 21 do you recall doing some testing on?
A I don't recall.
Q At least one more?
A Yeah, at least one. I can think of one example, so that's the definitive yes answer on the other question there.
Q What were the differences between that other one that you tested and the drawings shown on Exhibit 21?
A A lack of a hex on the nut. It was completely round for the upper portion.
Q Would that have been about the time of this e-mail, Exhibit 17?
A No, it would have been probably later.

I, the undersigned, a Certified Shorthand Reporter of the State of California, do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that any witnesses in the foregoing proceedings, prior to testifying, were duly sworn; that a record of the proceedings was made by me using machine shorthand, which was thereafter transcribed under my direction; further, that the foregoing is a true record of the testimony given.

I further certify I am neither financially interested in the action nor a relative or employee of any attorney or party to this action.

IN WITNESS WHEREOF, I have this date subscribed my name.

Dated: _____

ASHLEY SOEVYN
CSR No. 12019

Exhibit M

Competitive Landscape

OZCO vs Simpson

A SIDE BY SIDE LOOK AT 6X6 POST BASES

APB66 (Use Smooth Cut Lumber)
APB66R (used with rough cut lumber)

Item #: 54208
Post-Base (6X6-PB-LSL)

Item #: 51708
Post-Base (6X6-PB-IW)

FEATURES	APB66R *Rough Cut Lumber*	APB66 *Smooth Cut Lumber*	OWT LITE	OWT ORIGINAL
Hot Dip Galvanized				✓
Size Adjustability			✓	✓
Fits Pressure Treated Lumber		✓	✓	✓
Fits Smooth Cut Lumber		✓	✓	✓
Fits Rough Cut Lumber	✓		✓	✓
Necessary Hardware Included			✓	✓
Multiple Styles				✓
150+ Related SKU's in Product Line			✓	✓
2 Sided	✓	✓	✓	✓
4 Sided				✓
5 mm Thick Steel				✓
3rd Party Engineering Tested	✓	✓		✓
Retail Price	$49.15 * ***$58.63*** *w/ necessary hardware & fasteners*	$38.97 * ***$48.45*** *w/ necessary hardware & fasteners*	$32.45 *Includes All Hardware*	$59.49 *Includes All Hardware*

Competitive Landscape

OZCO vs Simpson

A SIDE BY SIDE LOOK AT HEX CAP NUTS

- OWT Features a 3 Piece Design
- Threaded Plug Hides Fastener
- Open to Use With All Types of Fasteners

OZCO DESCRIPTION / ITEM #	ITEM COST	HARDWARE INCLUDED? (Y/N)	ADDITIONAL ITEMS NEEDED (per assembly)	ADDITIONAL ITEMS COST	TOTAL COST (per assembly)	TOTAL WEIGHT	COST PER POUND
Hex Cap Nut (10 pack) 56621	$14.37 ($1.44/HCN)	N	OWT Timber Screw 3 3/4" (1)	$0.40/screw	**$1.84/HCN assembly**	**.17 LBS**	**$10.82**

- 2 Piece Design
- Exposed Driving Port Susceptible to Corrosion
- Only Manufactures Fasteners Can Be Used

COMPETITOR DESCRIPTION	ITEM COST	HARDWARE INCLUDED? (Y/N)	ADDITIONAL ITEMS NEEDED (per assembly)	ADDITIONAL ITEM COST	TOTAL COST (per assembly)	TOTAL WEIGHT	COST PER POUND
Hex Head Washer (8 pack)	$11.37 ($1.42/HHW)	N	Structural Screw (1)	$0.95/screw	**$2.37/HHW assembly**	**.24 LBS**	**$9.88**